

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



THE AMERICAN ELEVATOR AND GRAIN TRADE.

D. H. JOHNSON, DES.



Entered at the Post Office at Chicago, Ill., for transmission through the mails at second-class rates.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY, INCORPORATED.

VOL. XIII.

CHICAGO, ILLINOIS, NOVEMBER 15, 1894.

No. 5.

SUBSCRIPTION PRICE,
ONE DOLLAR PER ANNUM.

Excelsior Grain-Cleaning Machinery

CONSISTING OF THE

EXCELSIOR Dustless Warehouse and Elevator Separator,

EXCELSIOR Oat Clipper, EXCELSIOR Separator and Grader,

EXCELSIOR "Combined Grain Machine."

ALSO

PEASE DUSTLESS SEPARATORS and WAREHOUSE FANNING MILLS,
POWER CAR PULLERS, GASOLINE ENGINES, STEAM ENGINES, HORSE POWERS,
POWER TRANSMISSION MACHINERY,
GENERAL MILL AND ELEVATOR SUPPLIES.

ADDRESS

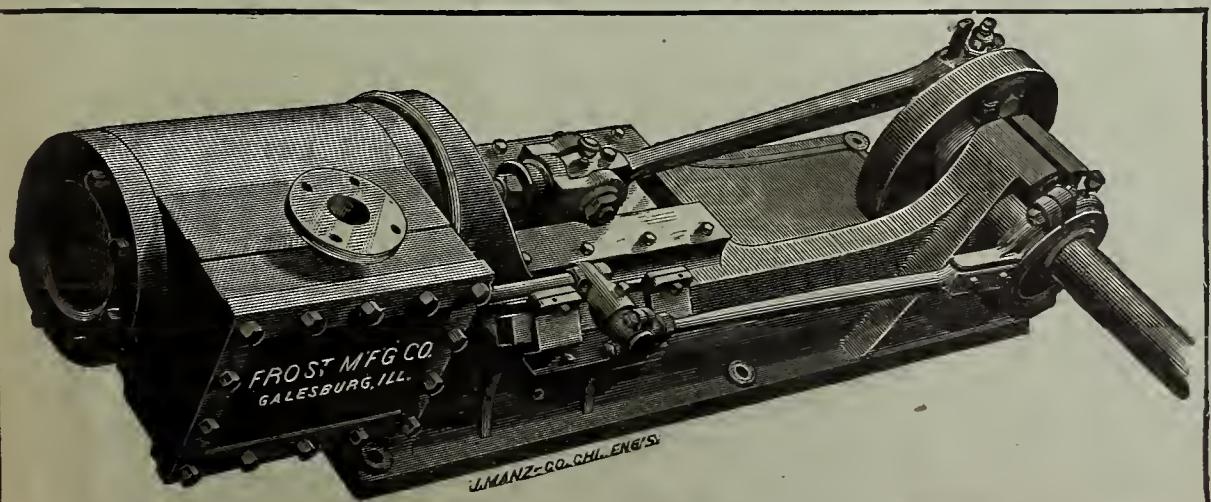
E. H. PEASE MFG. CO., RACINE,
WISCONSIN.

GALDWELL
CONVEYOR
HORSE POWERS
WIRE ROPE
BELT TIGHTENERS



SEND FOR CATALOGUE

THORNBURGH
MFG. CO.
110 Jefferson Street
CHICAGO, ILL.



FOR PRICES AND DISCOUNTS
ON
Elevator Machinery
AND SUPPLIES
OF
EVERY DESCRIPTION,
EITHER STEAM OR HORSE-POWER,
The FROST MFG. CO.,
GALESBURG, ILL.

NOTICE.

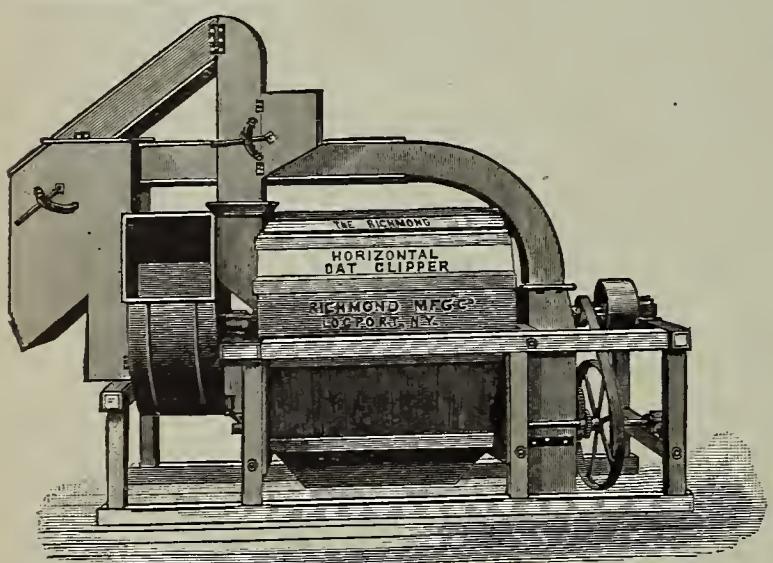
Important Decision Affecting Elevator Owners and Builders.

The Hon. Judge Grosscup of the Circuit Court of the United States for the Northern District of Illinois, on May 9, 1894, sustained the validity of the dust collector patents known as the "CYCLONE," and ordered a permanent writ of injunction against the defendants.

Infringing machines involved in these suits were built by the Vortex Dust Collector Co. of Milwaukee, and the Huyett & Smith Mfg. Co. of Detroit, Mich., who themselves assumed and conducted the defense, through their own attorneys. IF YOU HAVE USED, OR ARE USING INFRINGING MACHINES, YOU CAN SAVE MONEY BY PROCURING A LICENSE AT ONCE AND THUS AVOID LAW SUITS. We must and will call a halt on pirates and users of piratical machinery, and we warn the trade thus frankly and publicly against the manufacture, sale or use of infringing machines, and it will be our duty to prosecute such infringements of our rights to the fullest degree and in the promptest manner.

The Knickerbocker Co., - Jackson, Mich.

A Wonderful Machine.



The Richmond Horizontal Adjustable Oat Clipper with Revolving Case.

WEST JEFFERSON STEAM FLOURING MILLS,

WEST JEFFERSON, OHIO, April 11, 1894.

RICHMOND MFG. CO., Lockport, N. Y.

GENTLEMEN:—Inclosed find check, covering bill of March 10, in full. The No. 0 Horizontal Adjustable Scourer and Polisher with Revolving Scouring Case is a wonderful machine, and we are more than pleased with its work. We have cleaned all kinds of wheat and must say that it cleans beyond our expectations.

Yours very truly, JOHN RENNER.

The Richmond Grain Cleaning Machinery and Dusters.

**RICHMOND MANUFACTURING CO.,
LOCKPORT, N. Y., U. S. A.**

Write for Catalogue.

Link-Belt Machinery Co.,

ENGINEERS,

FOUNDERS

MACHINISTS,

CHICAGO, ILL., U. S. A.



MANUFACTURE

Shafting, Shaft Bearings, Pulleys, Gearing, Friction Clutches, Etc.

Manilla Rope Power Transmissions.

Standard Water Tube Safety Boilers.

Original Ewart Detachable Link Belting.

The Clark Power Grain Shovel.

Belt Conveyors and Trippers.

Savage & Love Patent Controllable Wagon Dump.

NEBRASKA CITY, NEB., May 16, 1894.

CHICAGO AUTOMATIC SCALE CO., CHICAGO, ILL.:

Gentlemen:—Please ship to our address at Hamburg, Iowa, an Automatic Scale, same as we ordered of you some time ago. This Scale is doing good work and we want another for our mill at Hamburg. Send the invoice and notice of shipment to us here. Execute the order as promptly as possible. Yours truly,

THEO. BEYSCHLAG, Mgr.



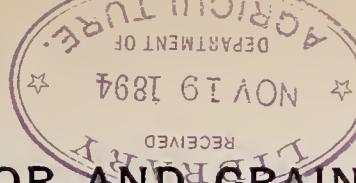
Porter Iron Roofing and Corrugating Co.,

19 Race Street, CINCINNATI, OHIO.

Manufacturers of all kinds of IRON and STEEL ROOFING and SIDING.

The Pioneers of the Metal Roofing Business in the United States. We guarantee satisfaction. We ship promptly. Give us a trial order, and we will sell you more.

When writing for our prices and Illustrated Catalogue, please mention the ELEVATOR AND GRAIN TRADE.



GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

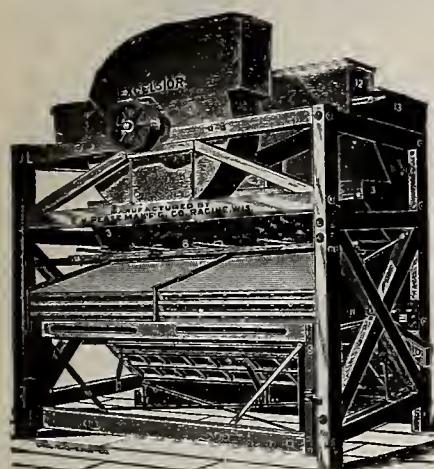
Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

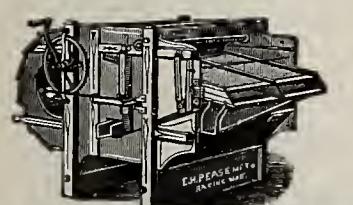
FAMOUS HAND OR POWER CLEANERS COUNTRY ELEVATORS.

The Successful Combination of 3 MACHINES IN ONE.

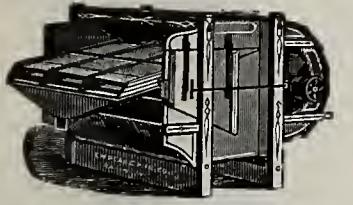
EXCELSIOR DUSTLESS ELEVATOR SEPARATOR,
Cleans, Separates and Grades Perfectly.
HAS NO SUPERIOR IN THE WORLD.



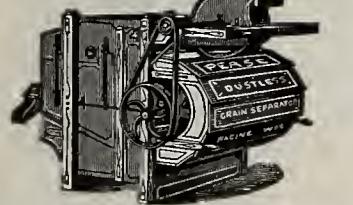
EXCELSIOR DUSTLESS ELEVATOR SEPARATOR,
Cleans, Separates and Grades Perfectly.
HAS NO SUPERIOR IN THE WORLD.



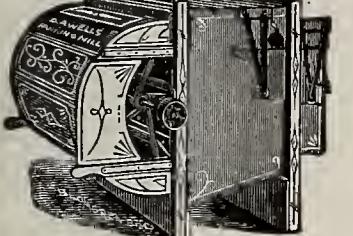
Pease Side Shake Mill for Warehouses.



Pease End Shake Mill for Warehouses.



Pease Dustless Separator for Warehouses and Mills.



"Wells" Warehouse Mill.—Extra Large Capacity.

EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FLAX REELS AND SPECIAL FLAX MILLS.
"OVERHEAD," "SWEEP" AND "TREAD" HORSE POWERS,
BAG-TRUCKS, WAREHOUSE TRUCKS, ETC.

EXCELSIOR COMBINED

Oat Clipper, Polisher, Separator, Grader and General
Dustless Elevator Separator.

This Machine has no Legitimate Rival in the World.
Send for particulars.

GRAIN ELEVATOR MACHINERY AND SUPPLIES

OUR SPECIALTY

Is to Furnish Every Description of

MACHINERY OR SUPPLIES

Required for the Equipment or Repairing of

GRAIN ELEVATORS

Such as:

**"SWEEP" and "TREAD" HORSE POWERS,
GAS ENGINES, OIL ENGINES, STEAM ENGINES.**

SHAFTING, PULLEYS, HANGERS,
PILLOW-BLOCKS, CLUTCHES, COUPLINGS,
GEARS, SPROCKETS, SET COLLARS,
TAKE-UP BOXES, CRANE SPOUTS.
LEATHER, RUBBER, COTTON AND LINK BELTING.
"FLEXIBLE" AND "SWIVEL" GRAIN SPOUTS.
ELEVATOR BOOTS, BUCKETS AND BOLTS.
"SPIRAL" AND "BELT" CONVEYORS.
"PLATFORM," "DUMP," AND "HOPPER" SCALES.
GRAIN SCOOPS, AND POWER GRAIN SHOVELS.

—ALL SIZES OF—

FARM AND WAREHOUSE FANNING MILLS.

GRAIN TESTERS, SEED TESTERS,
PERFORATED METALS, WIRE CLOTH,

Power Car Pullers, Oat Clippers, Dustless Receiving Separators,

POLISHERS, SEPARATORS, GRADERS,
FL

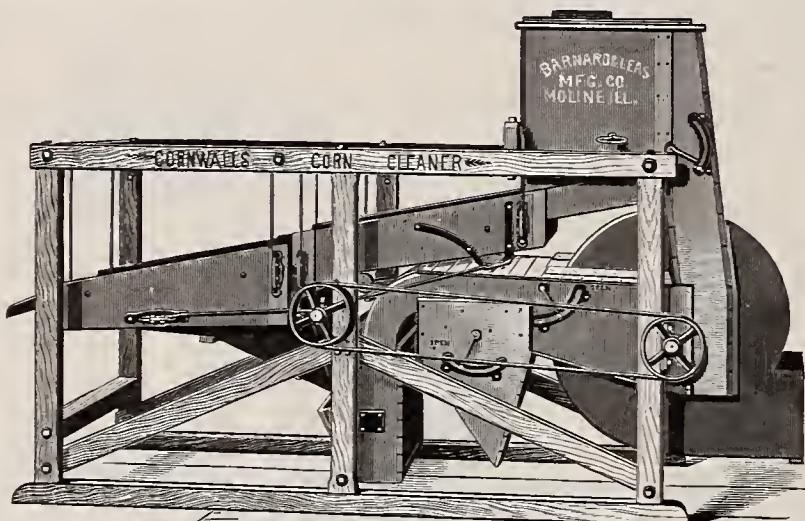
BARNARD & LEAS MANUFACTURING CO., MOLINE, ILLINOIS.

Sole Manufacturers of Barnard's Grain Cleaning Machinery.

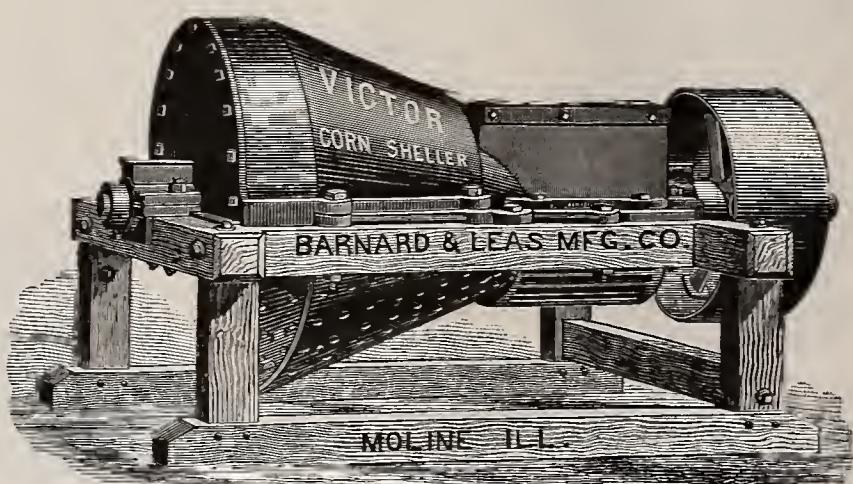
See these machines at work before purchasing.

The Barnard Grain Cleaning Machinery is built in a greater number of sizes, in a greater number of styles, and for a greater variety of uses in the mill and elevator than any other.

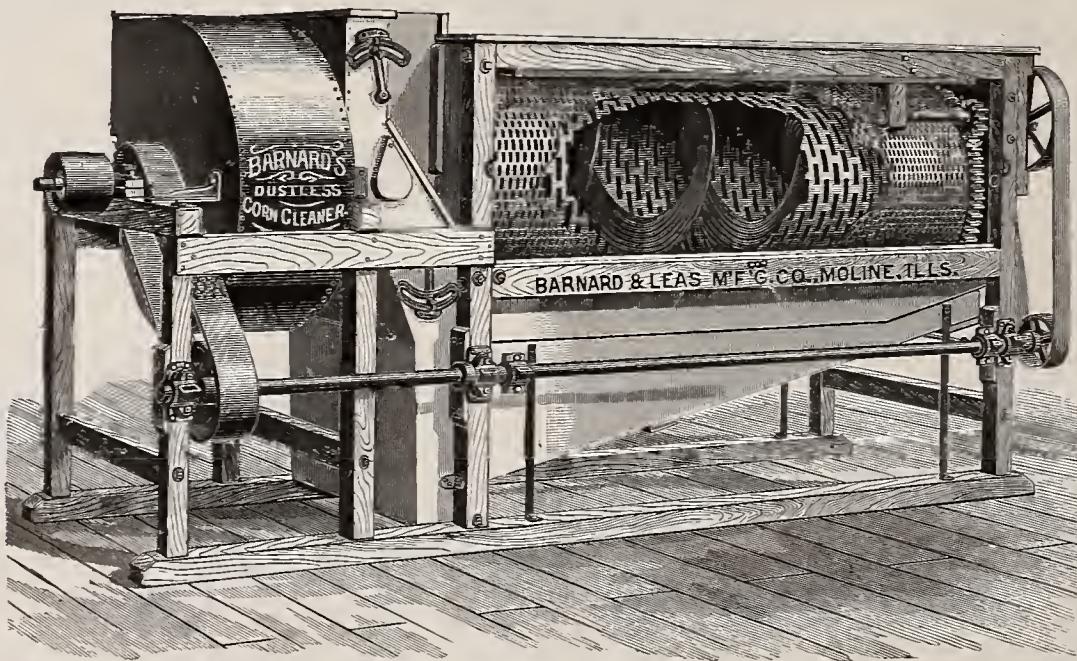
105 Barnard Cleaners were sold during the month of June for mills to be built and remodeled by us, for Elevators and Warehouses and incidental sales.



Cornwall Corn Cleaner.



Corn Sheller.



Double Screen Corn Cleaner.

SEND FOR SPECIAL CATALOGUE OF ELEVATOR MACHINERY.

OUR AGENTS.

M. M. SNIDER, 1325 Capitol Avenue, Des Moines, Iowa,
General Agent Iowa and Nebraska.
J. M. ALLEN, Fergus Falls, Minn.,
General Agent Minnesota, North and South Dakota.
J. F. PAYNE, Indianapolis, Ind., Room 3 Chamber of Commerce,
General Agent Indiana and Eastern Ill.
LEGRAND PAYNE, Indianapolis, Ind.,
Asst. Agent Ind., Eastern Ill.
G. M. RANDALL, Enterprise, Kan.,
General Agent Kansas, Colorado and Oklahoma.
J. H. WILLIAMS, Lock Box 203, Columbus, Ohio.
General Agent for Ohio.
WATEROUS ENGINE WORKS CO.,
Winnipeg, Manitoba.
R. C. STONE, Springfield, Mo.,
General Agent for Missouri, Arkansas and Texas.

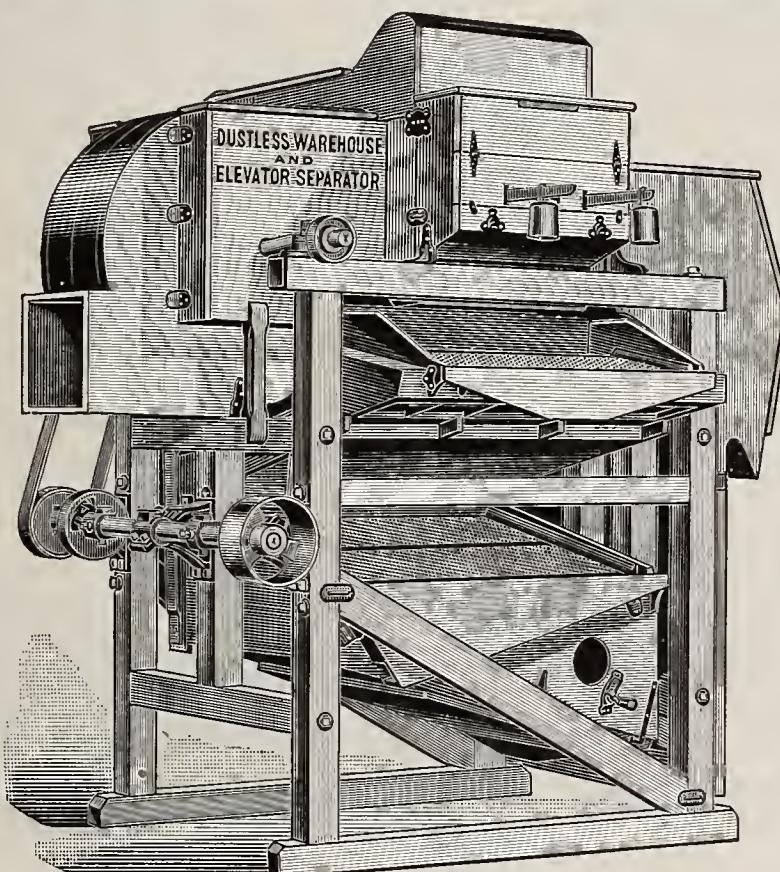
W. T. ELLSTON, Springfield, Mo.,
Asst. Agent for Missouri, Arkansas and Texas.
W. H. CALDWELL, Springfield, Mo.,
Asst. Agent for Missouri, Arkansas and Texas.
H. R. STAGGS, Springfield, Mo.,
Asst. Agent for Missouri, Arkansas and Texas
W. B. TALLEY, Paducah, Ky.,
General Agent for the Southern States.
C. P. WATTERSON, Farmington, Utah,
General Agent Utah and States West.
E. D. CAIRL, Colesburg, Iowa,
General Agent for Wisconsin.
CHAS. E. MANOR, P. O. Box 5, Stanleyton, Page Co., Va.,
General Agent for Virginia, W. Virginia, Maryland
and North Carolina.
WM. R. DELL & SON, London, England.

EUREKA

Grain Cleaning Machinery

THE GREATEST VARIETY
THE LARGEST CAPACITY
THE LARGEST NUMBER AT WORK

IN THE WORLD.

BY Far the
Best Separator
on the Market.We make every part of this machine
under our ownPERSONAL SUPERVISION,
and are thus in a position to guarantee
it as to material and workmanship.Will positively do more and better
work than any other Separator.Wide Suction.
Perfect Separation under Control.
Interchangeable Screens.
Large Cockle Screen.
Automatic Feed.Will run perfectly smooth and quiet.
Has large capacity.

WILL SHIP ONE ON 30 DAYS' TRIAL.



*Eureka
Warehouse
and
Elevator
Separator,*

WITH LATERAL-SHAKE
MOVEMENT
OF SCREENS.Conceded by all to be the best arrangement for
ridding grain of impurities. Has Counter balances
and new Pitman Drive.

READ WHAT USERS SAY OF THEM:

CLYDE, N. Y., May 21, 1894.

MR. S. HOWES, Silver Creek, N. Y.

DEAR SIR:—I enclose you check for \$ to balance account for the Eureka Warehouse Separator. I take pleasure in informing you that I am much pleased with the machine, which has done good work from the start.

Yours truly, GEO. B. GREENWAY.

YORK, Pa., July 18, 1894.

MR. S. HOWES, Silver Creek, N. Y.

DEAR SIR:—We are in receipt of your favor of the 16th. The Warehouse and Elevator Separator sold us by you is giving us great satisfaction. We are not in the habit of recommending any machines, but must speak well of this one.

Yours truly, P. A. & S. SMALL.

Address **S. HOWES, Silver Creek, New York,**
SOLE BUILDER.

GRAIN CLEANERS.

IF YOU ARE IN NEED OF A PERFECT GRAIN CLEANER, WE OFFER YOU

The Monitor Separator

These machines have stood the test and are pronounced by leading elevator operators superior to anything heretofore used. Their opinions are based on actual experience.

Nearly all of the leading cleaning elevators built during the last four years have adopted

THE MONITOR

They are simple, yet perfect in construction and durable.

They do the maximum of work with the minimum of power.

They have a powerful, but perfectly controlled air current.

They can be quickly adjusted to do any class of work desired.

They will give you grand satisfaction.

They are modern machines, and you will find them in all of the modern cleaning houses.

If you are interested in this line we ask you to investigate.

BARLEY.

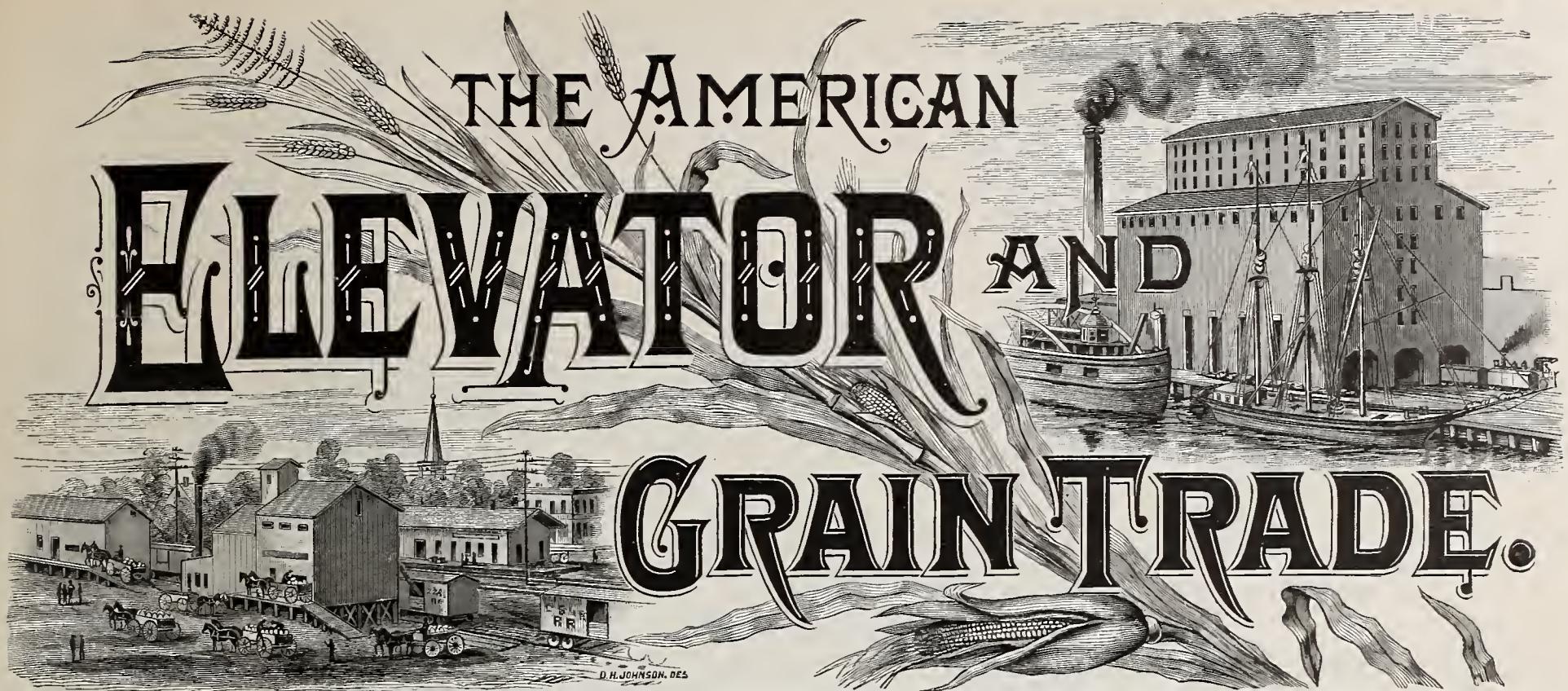
We are making a special **BARLEY CLEANER** that stands at the head.

FLAX.

Our **Monitor Flax Cleaner** will give you good results. Close work with large capacity.

Huntley, Cranson & Hammond
SILVER GREEK, N. Y.

B. F. RYER, GENERAL AGENT, 799 MONROE STREET, CHICAGO.



THE AMERICAN ELEVATOR AND GRAIN TRADE.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
MITCHELL BROS. COMPANY, {

VOL. XIII.

CHICAGO, ILLINOIS, NOVEMBER 15, 1894.

No. 5.

SUBSCRIPTION PRICE,
ONE DOLLAR PER ANNUM.

O'NEIL'S ELEVATOR AT SOUTH CHICAGO.

South Chicago and the comparatively cheap land along the Calumet River continue to attract new grain elevators to that part of the city. Four new elevators have been erected there this season and three of these were built by the Simpson & Robinson Company.

The last one to be completed by this company is the 750,000-bushel barley cleaning elevator, built at One Hundred and Second street and the Calumet River for the Chicago O'Neil Grain Company, a new corporation organized to deal in grain, with offices at 79 Board of Trade building, Chicago, of which H. J. O'Neil is president; I. Blumenthal, vice-president, and E. L. Glasser, secretary and treasurer. The gentlemen are all well known to the grain trade, and also to the brewers and maltsters, as dealers in barley.

This house, which is illustrated herewith, stands on the south side of a wide slip that can be entered by the largest vessels on the great lakes. The house has ample wharfage and plenty of track room.

The foundation of the house is made of white oak piling and heavy Joliet block stone piers. It is 100x150 feet and 160 feet high. The basement floor is made of concrete and will always keep dry. A siphon at the lowest point of the basement will remove any water which may get in. The basement contains six receiving sinks and ten elevator boots placed in boiler iron, water tight tanks. The elevator buckets are 7x7x16 inches. Three of the elevators are used for receiving, three for cleaning, two for transferring, two for shipping, and one for screenings. The screenings from all of the cleaners are carried by a screw conveyor to the boot of the screenings elevator. The house has a receiving capacity of twelve carloads an hour.

On the first floor are six Barnard & Leas Barley Cleaners of 1,000 bushels per hour capacity. These are of special design, with brushes to keep sieves clean, and with special adjustment for regulating the suction at the discharge; one King Barley Cleaner with a number of magnetic separators arranged at its head and a combination Beeman machine for cleaning barley, flax and wheat. Six Cyclone Dust Collectors

receive the exhaust from the cleaners, and a 5-foot fan blows the dust to a large size Cyclone Dust Collector over the boiler room. Two oat clippers will be added. Two car pullers of Robinson's special design are used to move the cars to the receiving sinks; one engine and crew are kept busy switching the cars in the yard. Two tracks run through the house and are

pull out of a car. A passenger elevator with a lifting capacity of 2,000 pounds is in the west end of the house.

On the top floor of the cupola are ten elevator heads, with turn heads which are worked from the scale floor. Each elevator is driven by Robinson's Single Rope Drive, so that each may be started or stopped independently of the rest of the elevators by the operator on the ground floor.

The garner floor of the cupola contains piping and six garners of 1,500 bushels' capacity each.

The scale floor contains the dials of the turn heads and the hoppers of six 1,400-bushel scales. On the next floor below is the spouting, which is claimed to be the most complete and best arranged spouting ever put in an elevator. Each elevator spouts to two scales, and all the elevators in the house except two can be made to spout to each of the eighty-one 70-foot bins in the house by means of a system of fifteen Simpson & Robinson Double Jointed Anti-Friction Patent Distributing Spouts.

Barrels of salt water with fire buckets and Miller Chemical Fire Extinguishers are placed on each floor. These, with a standpipe and hose reels attached, serve to give the elevator protection from fire. At each end of the elevator is a fire escape. The building is equipped with speaking tubes and signal gongs.

The power plant is on the east side of the elevator and 30 feet from its end. Power is transmitted direct from the engine shaft to a 16-foot sheave in the elevator, and from this sheave to the line shaft by means of 16 strands of 1½-inch manilla rope.

The brick engine room contains a 400-horse power Hamilton-Corliss Engine, an Ideal of 30-horse power, to run a 300-light dynamo and two steam pumps. One has a capacity of 200 gallons a minute, and is used to sup-

ply the boilers; the fire pump has a capacity of 1,000 gallons a minute and supplies the standpipe. The brick boiler room is divided from the engine room by a heavy brick wall. It contains three boilers with a combined capacity of 500-horse power. Above the boiler room is a Cyclone Dust Collector of the largest size, which collects the dust from the other collectors and drops it into the furnaces under the boilers. The elevator is covered with galvanized iron siding and a tin roof.

The brick office is heated by steam and lighted by electricity. The basement contains a dressing room



O'NEIL'S ELEVATOR AT SOUTH CHICAGO.

connected by a switch on either side; one is used for receiving and one for both receiving and shipping. On the south side of the house is another shipping track. It is protected by a projecting roof, and three bifurcated loading spouts are provided so that three cars can be loaded at the same time. On the opposite side of the house are three long extension loading spouts for spouting the grain into holds of lake vessels. The receiving sinks are covered with iron grating, to keep sticks, boards and other objects which may one of the three pairs of Clark Power Shovels may

for the employes. The first floor contains the office of the bookkeeper and two private offices. The entire plant is lighted by electricity, 16-candle power lamps being used inside and 32-candle power lamps outside.

J. D. Jones is superintendent of the plant and J. L. Cox is house foreman. Mr. Jones, who is well known to the trade, looked after Mr. O'Neil's interests at Superior last year; and for the preceding nine years he was with Mr. O'Neil at Winona. Previous to that time he was with Van Duzen & Co.

The Simpson & Robinson Company, who make a specialty of short-time contracts, built this house in ninety days, despite the fact that they had over 100 cars of material in transit at the time the great strike was declared. Work was continued night and day all through the strike, and the house was completed on time.

THE CANADIAN PACIFIC RAILWAY COMPANY'S ELEVATORS AT FORT WILLIAM.

There can be no better evidence of the wonderful progress of the Canadian Northwest than the remarkable development of the elevator system of that region. Up to the early 80's the country west of Lake Superior and north of the 49th parallel was practically without any elevator facilities whatever, not for lack of enterprise of those interested in the grain trade, but simply because, owing to the lack of means of transportation, and the fact that after supplying the local demand, abnormally increased by the large influx of settlers and the construction of railways and other public works on a gigantic scale, there was no need of them. When, however, rail communication was established between Winnipeg and the ports at the head of Lake Superior, a decided impetus was given to grain growing on the fertile prairies of Manitoba and the territories beyond, and the area under cultivation was annually largely increased. Coincident with this was the introduction of the elevator system, which from small beginnings has in a little over a decade assumed comparatively large proportions. In 1891 the storage capacity of Manitoba and the Northwest amounted to 7,628,000 bushels, in 1892 it had reached 10,366,800 bushels, and in 1894 this was increased to 11,467,100 bushels, all being tributary to Lake Superior ports.

Largest among the numerous elevators which serve this great Western domain are those of the Canadian Pacific Railway Company at Fort William and Port Arthur, which form the gateway of the Northwest. Port Arthur is situated on Thunder Bay, and Fort William on the Kaministiquia River, six miles distant. Through these ports almost the entire grain trade of the Canadian Northwest passes, via the Great Lakes, to the Atlantic seaboard. With yearly increasing volume it now averages from 18,000,000 to 20,000,000 bushels per annum. During the month of October of the present year the receipts at and shipments from Fort William alone exceeded 1,000,000 bushels per week, and from the middle of September to the close of navigation, it is anticipated, will reach 10,000,000 bushels.

The first of these north shore elevators was erected at Port Arthur in 1883. With a capacity of 315,000 bushels, it has three receiving and two shipping legs. This structure is now used entirely as a cleaning elevator, and contains a complete plant for cleaning and scouring grain. All rejected and dirty grain is sent here, it having been made a private elevator and leased by the Canadian Pacific Railway Company to Messrs. Marks, King & Co., a well-known local firm who operate it. They, having superior facilities, are doing excellent work. The power is supplied by 175-horse power Corliss Engine: the principal machinery consists of three receiving and two shipping legs and one cleaning leg, two Barnard & Leas No. 3 Separators and four improved Richmond Scourers, four Silver Creek Brush Machines, which clean from 5,000 to

12,000 bushels of smutty wheat per 24 hours. The elevator can unload from 95 to 100 cars of wheat and ship out 100,000 to 125,000 bushels of wheat per day: the water allows any boat to load that can from the Soo Canal. At present the elevator is running day and night with every prospect of a busy season. Joseph G. King is in charge of the house. The firm of Marks, King & Co. is composed of Thomas Marks, Jos. G. King, George T. Marks and Harrold Albiley.

There are three elevators at Fort William which are owned and operated by the Canadian Pacific Railway Company. They have a total storage capacity of 4,000,000 bushels, and are named respectively "A," "B" and "C." Mr. M. Sellars, an experienced elevator man, is the company's elevator agent at that point.

Elevator "A," which has a storage capacity of 1,250,000 bushels, was built in the winter of 1884-85. It has nine receiving and six shipping legs, with an elevating capacity of 6,000 bushels per hour each. Nine pairs of automatic power shovels are used in unloading the grain. In ten hours 200 cars can be received and 250,000 bushels of grain shipped. The elevator is supplied with six Barnard & Leas Warehouse Separators. The power plant consists of an Atlas Corliss Engine, 32"x48", with indepen-

shipping belt conveyor with a capacity of 32,000 bushels per hour.

The annex is distant 350 feet from elevator "A," from whose engine the power to operate it is transmitted by a rope. In filling the annex all grain is transferred from "A" by a 36-inch belt conveyor, and is elevated to the top of the tower, weighed by twin scales of 1,000 bushels' capacity each, and from there is dropped onto the distributing conveyor. An automatic traveling tripper sends it to the different bins, which number 174.

In shipping from this building the grain is taken from the different bins to the leg by two collecting conveyors. It is then elevated to the top, and after being weighed is deposited in the shipping bins, from which it is carried to the face of the wharf by the large belt conveyor previously mentioned. Vessels can be loaded direct from the scales by means of the large shipping spout; or, after a part of the cargo has been deposited in the shipping bins, both means of loading may be employed simultaneously, giving a total shipping capacity of 49,000 bushels per hour.

The machinery, which is all of the latest make, was manufactured by the Webster Manufacturing Company of Chicago, and the annex was designed and constructed by Mr. J. A. Jamieson, M. E., of Montreal, who is in charge of the designing, construction and

operation of the entire elevator system of the Canadian Pacific Railway Company, which extends from the Atlantic seaboard to the very center of the Canadian Northwest.

CRIBBING CORN.

One may easily begin cribbing too soon, writes a correspondent of the *Country Gentleman*. Getting the corn in the crib too early is even more disastrous than leaving it in the field too long. Corn that heats and molds in the crib is altogether damaged. Every ear ruins its neighbor. And as the catastrophe takes place last round the outside of the crib, where the corn is exposed freely to the air, the damage is apt to have made lamentable progress in the interior before it is discovered unless one is very watchful indeed. It will not stop the heating and molding to throw the top off the crib. That is the worst thing one can do. The damage may be mitigated by spreading the corn out in a dry, airy place.

Be sure the corn is cured, and then go ahead, and as fast as you can. That

corn may keep properly in a crib, it must not be husked until cured. It must be husked clean, and the crib must shelter it from the weather. Corn should not be cribbed until it is dry — feels dry, down to the very cob. It may be cribbed when wet with rain (if well cured) without appreciable damage, if not too much of it is put in the crib, but undoubtedly it is better to have it dry altogether when cribbed. By clean husking I mean removing the silk as well as the husk, and removing all the husk. When the silk is not removed and when "ribbons" in the crib are frequent, the chances of molding are increased, and the depredations of mice are multiplied. The mice are highly pleased by the juxtaposition of bedding and food. Husk and silk absorb moisture and hold it.

Government statistics show that the low price of wheat has developed the pork packing interests in the state of Washington, and places the number of hogs being fattened on wheat in Whitman county alone at 75,000.

According to the report of W. D. Charde, secretary of the Kansas City Commercial Exchange, receipts of grain at that city for the five weeks ending November 3, as compared with the receipts during the same time in 1893, were: Wheat 709,150, against 1,301,950 bushels; corn 409,500, against 1,246,000 bushels; oats 240,000, against 262,000 bushels; barley 4,000 bushels, against none in 1893; flaxseed 10,000, against 15,000 bushels; hay 7,010, against 4,650 tons.



CANADIAN PACIFIC RAILWAY CO.'S ELEVATOR AT PORT ARTHUR, ONT.

TWICE TOLD ELEVATOR TALES.

BY J. A. DEMUTH.

There seems to be at present quite a breathing spell for the grain traffic. Nobody seems to want any wheat—even at 45 cents per bushel. Farmers have loads of it, elevators are full of it, and almost everybody is disgusted with it because it is so cheap. But what are we going to do about it? To be sure just now there is a small cloud in the east which promises a breeze, but it isn't near enough nor big enough to disturb the canvas which has for so many months been hanging loose and useless from the masts. The calm is becoming oppressive, but it won't do to forsake the old ship and leave her to drift wheresoever she will. Peradventure the eastern breezes may come and take us unawares.

Why, then, isn't this a good time, a most fitting time, to spin yarns? It has been observed by someone that when a man gets well up in years he forgets the new stories he hears, but cherishes with increasing fondness the chestnuts which have become so thoroughly dried with age and exposure that their shucks appear to be all there is left of them. Of this sort, I own, I could a few unfold, but I forbear and will relate, with indulgence of my readers, a few which I have not told more than forty times—certainly not more than one hundred and forty times.

The first one is from the extensive repertory of our elevator foreman, who was noted locally for his fund of anecdotes. His delight was to relate a fresh one and, immediately after the climax thereof, draw down his head between his shoulders, thrust his fists into the utmost depths of his pantaloons pockets and walk off toward the upper end of the elevator, as if he could not bear to witness the agony of his audience. But he invariably came back—with another one. If I remember rightly the following was at the expense of an erstwhile grain shoveler whom the wheel of fortune had caught up from the depths of some schooner's hold, elevated to the capacity and appurtenances of a bull on the market, which filled his pockets to over-

flowing with shekels and finally landed him with a boiled shirt and a large-sized diamond into the city council of New York. Measures were being discussed for the further beautifying of Central Park. It was our bull's first term, and he presumably had a sense of obligation toward his constituents which he no doubt wished to have thoroughly aired. A bill was up

trates what is a characteristic trait of bulls and bears alike, namely, the propensity for deep schemes in puts and futures and such things.

Our foreman was a son of Erin, but his early education had been entrusted to the keeper of a flourishing beer garden, so that he spoke German and sundry dialects thereof with perfect fluency. The following

is told of an enterprising grain buyer—a man who had made his mark in running a country elevator and who had been discovered and employed by one of the enterprising houses who figure conspicuously on 'Change in their native city. Mr. Eberhardt was a jovial fellow, and, in the days when consignments were popular, he exercised with the grain buyers on the road an inborn faculty for making himself agreeable, to the profit of his employers.

On a particular occasion Mr. Eberhardt missed his train and was obliged to spend the greater part of the afternoon and night in a small town where the opportunities for passing a pleasant evening were very meager. Our friend smiled several times during the afternoon with his friends and after supper sauntered out in quest of entertainment. There were no shows, not even a church social. But there was a very largely attended revival in the Methodist church, which was awakening general interest in the village, and to this Mr. E. wended his way. The church was crowded and our friend was shown the only vacant seat, which was near the front and directly under the eyes of the preacher. The atmosphere of the room, in combination with the effects of his sundry

CANADIAN PACIFIC ELEVATORS AT FORT WILLIAM, ONT.

to provide, among other things, a number of gondolas for one of the lakes. After much seesawing our bull took the floor. "Mishter Presydint—Whoile Oim entirely in favor of adoptin' measures and manes fuhr a beautifying our great city, Oi think we air in juty bound to exercise sthrikt economy and make the money of our constituents go as fur as it will. Now thin it seems to me, Mishter Presydint, the wiser coorse would be, instid of buyin' a g-r-e-a-t number of gondolas at onct, to buy this time only a male and a female and thin let nature take its coorse." It illus-

"smiles" late in the afternoon, produced a serene state of mind despite the harrowing tenor of the preacher's discourse. From this happy state he fell into a deep sleep with his chin resting heavily on his breast. Finally the preacher began to exhort and at the fitting time feelingly requested those of his audience "all who want to go to heaven stand up!" Of course they all wanted to go and so stood up—all save our friend, who was peacefully snoring on his own bosom. The confusion of the audience in rising to their feet slightly disturbed his slumbers. At this point the preacher,



pleased with the general response to his invitation but piqued at the comatose condition of our friend under such an urgent call, exclaimed with considerable emphasis, "Now all those who want to go to hell, stand up!" By this time our friend was partially awake. The emphasis laid upon the words "stand up!" caused only these two words to penetrate his drowsy senses; and, being of an extremely obliging disposition, he forthwith stood up. There was a titter and confusion among the audience and a contemptuous smile on the face of the preacher. After a drowsy glance over the heads of the congregation, a good natured smile broke over his face as he turned to the speaker and said: "Now den Misder Breacher I don't was baying shtrict addension to vat vas goin' on in dis meetings und so I don't know exzeckly wat you been a vodin aboud; aber it looks to me, Mr. Breacher, als if you and me makes one of dem wat you call one hobeless minority!" And it there and then dawned on the preacher's heated brain that he was in it as deep as his victim.

I think one or more characters can be found in the crew of almost any good-sized elevator. We had several in ours. Old John, the weighman in elevator "A," was one of them. Years ago we used to have a good deal of trouble about weights. On the receipt of a claim for shortage we nearly always interviewed Old John. He nearly always remembered "that car" as having been poorly boarded or having had a small load. He wasn't a philosopher, but experience had taught him that there was no such thing as going behind his returns. The perfectly unruffled state of his nerves when confronted by myself with the papers in the case, and perhaps with the irate shipper in person, was an interesting study. His ultimatum after listening to the statement of the shortage was invariably: "Dots all dey was in de car und dots all wat he ken git." And in about nineteen times out of twenty that was what came of the claim. However, one day late in the fall Old John met his Waterloo. In this wise: With some papers and the tally book I took up my march to the elevator. Old John was drawn up in line of battle as he always was when he saw me coming with the tally book at any other time of day than the regular time for changing books. When I had advanced within short range and could distinctly see the whites of his eyes and the venerable wart on the end of his honest old nose—I say honest because for many, many years Old John did all our inspecting, and a good share of it with this same nose; and everybody knows that when Old John's nose went into a car of wheat the result was yea, yea or nay, nay, as the case might be, and there was no appeal—as I was saying, when our advance line came in plain view of this same nose with its appurtenances, I opened up with a sort of stragetic fire as it were. John, I said, here's a shipper that's after us again. And it's a serious matter this time. The difference, John, between his figures and ours is an even 10,000 pounds. The car was loaded out here on the C. W. & M. just day before yesterday, and the shipper says he knows his weights were correct, because he loaded that car himself; and he is willing to swear to his figures. Besides, John, the shipper says that this car was all he had of that grade of wheat and he can show us the farmers' receipts for the exact amount of this grain that he put into the car. Couldn't you have made some mistake, John? John looked over his figures in the tally book, then he looked up the car number in his memorandum and finally said: "No, sir, dot's all wat dey was in dot car und dot's all wot he kin git." "But see here, John, the car wasn't sbot; it was over!" "Wat! 10,000 pounds over! How could dot be? Lem me see dot tally book again." John was excited now. I never saw him manifest so much interest in a "claim" before. He hunted up the slips that he made of the cars on track in the morning, he looked up and down the track, he went and spoke to Ike about it. Finally they remembered that car and it was a good-sized load. And Old John began to say, "Dots all dey was"—but checked himself the next instant and said, "Dot shipper must make mistaken." And much as he had the interests of the elevators at heart he was willing to give this man 10,000 pounds of wheat rather than admit that he had make a mistake. Old John was like Gen. Grant—he never knew when he was whipped!

There is considerable California barley being forwarded from San Francisco to New York.

THE PRODUCTION AND CONSUMPTION OF RICE IN THE UNITED STATES.

NO. II.

It is not only in harvesting, however, that machinery has been introduced. It is extensively used in constructing levees and in various other processes connected with rice culture. But the rapid development of this industry in certain southwestern parishes is due in a considerable measure to natural features of the country tending to adapt it to this branch of husbandry and to the advantageous use of machinery in its prosecution. Some interesting information as to its growth in these parishes and as to the improved methods of flooding, cultivation, harvesting, etc., by which that growth has been brought about, is found in a paper on "Rice Farming in Southwestern Louisiana," read at the annual meeting of the Agricultural Society of Louisiana, in January, 1891, by Dr. S. A. Knapp of Calcasieu Parish.

Dr. Knapp stated that five years before the time at which he was speaking "rice cultivation in Calcasieu was as primitive as barley culture in the days of Abraham," but within five years "the little patch planted for the family food" had "grown to 100 acres, and in some cases to 500 acres." He says:

There were inherent difficulties in handling our rice lands, not easily overcome at first. The surface of the Calcasieu prairies is similar to that of the great prairies of the Northwest, except that the long wave formation is very much flattened, and the intervening depression, or slough, of less depth. The banks of the slough are far more irregular here than north. In places they are a quarter, or half, or even a mile apart. They then approach each other within a few rods, or even feet, but soon diverge to form another basin. A few years since these basins were a series of shallow ponds, now connected and drained by well-defined gullies, with an average fall of 18 to 28 feet, to the level of the sea. For centuries these ponds were the reservoirs of decayed vegetation, and later became marshes of surpassing richness.

One of the chief difficulties in converting these marshes into rice fields consisted in the vast amount of water that at times would gather in these basins, forcing itself over and through the ordinary levee as if it were a wall of paper. If the water could be controlled and utilized then Calcasieu would furnish conditions the simplest and most economic for the production of rice yet known to man.

About four years since the farmers of Calcasieu took hold of rice cultivation in earnest. They first substituted the ditcher for the spade. The machine is simply a monstrous plow drawn by a capstan.

The one in common use cuts a ditch $3\frac{1}{2}$ feet wide, 2 feet deep, and throws all the dirt on one side, shoving it 1 foot from the edge of the ditch. By reversing and cutting a second ditch 7 feet from the first, throwing the excavated dirt toward and against that of the first ditch, a body of dirt sufficient for a substantial levee is massed and packed, requiring only one hand with a spade to follow the ditcher and complete the levee. In this way three men will place in completed levee from 500 to 800 cubic yards of earth in one day, using the power of two yokes of oxen. With the spade it formerly cost our farmers from 10 to 15 cents per cubic yard for excavation and levee work. With the improved ditcher 2 cents per yard will cover actual expenses, besides saving time and annoyance.

Plowing at first was no less cumbersome than levee work. The Attakapas pony and a 7 or 8 inch plow meant only rice for home consumption. These toy plows were soon relegated to the shade, and the wheel gang plow, cutting from 22 to 27 inches, came into the field to stay. The average hand is now expected to break $2\frac{1}{2}$ acres per day with oxen, and $3\frac{1}{2}$ acres with horses or mules. Again the record was lowered and economic forces introduced.

On sod the plow is followed up by the disc harrow, which cuts and pulverizes the sod and prepares the soil for seeding. The power broadcast seeder now enters the field and sows its 25 acres per day with absolute evenness, followed by the common harrow and the work is complete. In the four initial items of rice farming, leveeing, plowing, pulverizing the soil, and sowing, I estimate the average increase in

the capacity of a man to do work has been 300 per cent. in five years. An important factor in our rice farming is the firmness of the soil in the Calcasieu marshes when well drained, making it practicable to use the machinery in all cases. A twine binder of 6 feet cut can easily harvest 8 acres per day, even if drawn by oxen. As compared with the sickle, the binder and bundle carrier does the work for sixteen men.

The steam thresher does the work of ten to fifteen men. Except in stacking, every process of rice cultivation has been changed by the introduction of improved machinery from its former slow, laborious and expensive method to one of rapidity, ease and economy. Twenty acres of rice were as great an undertaking a decade ago as 100 acres to-day, requiring as great an expenditure of force, time and money.

Under this system of rice farming, what does it cost to produce an acre of rice?

The cost varies under different conditions and management, but may safely be placed at \$10, and the average product upon Calcasieu marshes at twelve sacks. The present cost of marketing is something over 50 cents per sack. If we allow for sacks and transportation from the field to the station the actual cost of our rice on the New Orleans market and sold is a little under \$2 per sack. It should bring something more than this to afford a reasonable profit. If the markets approach this point it is safe to say that little rice can be grown at present.

It is quite likely that a lower cost of production may be reached by the improvement of machinery, and the expenses of marketing may be sensibly reduced by the multiplication of mills and better facilities for handling the crop.

Rice, as a food, has been used in the United States mainly as a luxury, and has not, therefore, been subject to the exact competition of a food supply for the masses. If production be largely increased it must soon compete for a place among the cheap foods for the wage earner, or it must be exported as a luxury. As an export it would compete with the products of India and China, which would be more depressing in price than to compete for the home market as a staple food.

On this last point, however, Dr. Knapp expresses his confidence in the ability of the American rice producer to hold his own in competition with the cheaper labor of those countries. "Improved machinery," he says, "is a match for low-priced labor, and may be trusted to compete just as safely in the rice product as in the wheat."

Dr. Knapp devotes some space to the question whether rice can compete with wheat as a staple food for home use, reaching the conclusion that "with the improved machinery and the inexpensive method of irrigation, rice * * * is prepared to stubbornly contest the home market as the cheap food supply for the laboring masses." He says:

The further obstacles to be overcome in the direction of a cheap general food are chiefly in the marketing and the milling. The cost of transporting rice from Lake Charles to New Orleans and selling it this season has ranged from 50 to 60 cents per sack, which is nearly double that of wheat under similar conditions. The charge for milling can be materially reduced. If the costs tacked onto rice, after it leaves the hands of the farmer, be made to correspond with those of wheat we may expect rice to be placed upon the American markets at no distant day as the great competitor of wheat.

[TO BE CONTINUED.]

A question having recently arisen as to the correctness of the receipts of wheat at Kansas City as received by the Board of Trade, compared with the reports of the Associated Press, a letter to the secretary of the Board of Trade confirms the former, and states that the latter only includes the grain placed in store. —*Trade Bulletin*. The foregoing probably refers to Kansas City, Kan. The Exchange at Kansas City, Mo., is called the Commercial Exchange. It seems that there is something radically wrong with the reports of the receipts and shipments at that point. All grain received in either city should be included in one report and full and reliable reports issued to the trade.

WHO OWNS THE WHEAT?

The railway companies are using all the means in their power to trace the ownership of a portion of the wheat held in the elevators here, and are trying to find out from the original owners, the parties to whom they sold it. There is wheat in the elevators here the charges on which have eaten up its whole cost, and, of course, if the real owners took delivery of it, it would be a double loss to some of them, as they have already lost the whole first cost thereof, and do not want to incur any extra loss in the shape of storage and other charges. In other instances the owners find that although the first cost of the wheat has not been wholly absorbed, they would be heavier losers by assuming ownership, as it would involve pretty steep extra expenses during the past few years.

Certain banks, it is said, could shed some light on the actual ownership of the grain as they hold warehouse receipts of same; but as it is evidently not in their interests to divulge the secrets, it would be futile for the railway companies to seek information in that direction. The railways are consequently placed in an awkward position, as in case they sold the grain in order to realize their charges, and subsequently a European war transpired, and sent the price of wheat up to Mr. Van Horne's \$2 limit, the owners would no doubt produce the bills of lading or warehouse receipts, and demand the grain. Mr. Van Horne might then curse the day that fulfilled his memorable prophecy. An instance has just been mentioned to us, in which the holder of one carload of wheat that was held in one of the elevators here ordered it to be sold, and the result showed a loss of \$300—*Trade Bulletin, Montreal.*

THE HERCULES AUTOMATIC BUCKWHEAT SCOURER.

Time was when the elevator man was content to allow his grain to wallow in its own dirt; but competition and the mother of invention have altered that felicitous state and made a line of cleaning machines a necessity to the full equipment of a modern elevator.

There are many points of interest about the Hercules Automatic Buckwheat Scourer and Polisher, of which we present an illustration, which are worthy the attention of those who use cleaning machines. The manufacturers claim the special points of simplicity of construction, its freedom from fire hazard and the quality of demanding a minimum amount of power, and also the automatic feature of the machine. The scouring plates, which are set in spring sockets, adjust themselves while in motion to hard, medium or light scouring, and the quality of the work is not determined by the amount of grain passing through the machine.

In the Hercules Scourer the grain is fed into a hopper with an automatic feed gate, which regulates and equalizes the flow, spreading the grain evenly over the top of the shoe or riddle in a thin sheet. Leaving the feed gate, the grain passes a magnet attachment, which separates all metallic substances. It then goes to the sieves where all foreign substances are removed. The scouring plates are steel with circular perforations. The grain is thrown to the concave of the scouring case and is carried spirally through the case, the grain being clipped in its journey and the fuzz drawn through the perforations by the revolutions of the automatic scouring plates. The machine thus acts in the triple capacity of scourer, conveyor and fan.

As the refuse and separated impurities of the grain are blown through the perforations of the scouring case they are collected in a small conveyor located at the bottom of the machine. By this conveyor the refuse is carried to one end and may be spouted away. This feature permits the machine to be perfectly clean, and it is claimed that the feed stuff thus accumulated will pay for the machine in a short time. This is an important item for the elevators that are branching out into feed grinding this season.

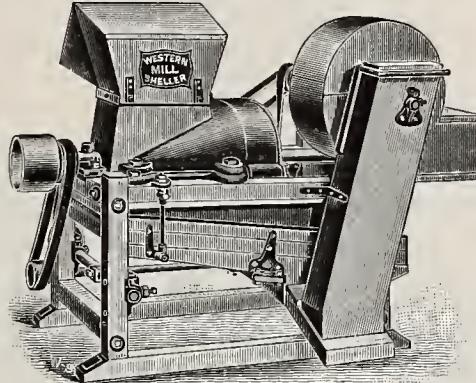
After a thorough polishing the grain escapes into a suction spout, where it is thrown into a spray, and a most thorough separation of all imperfect grains is

made by the action of a fan. After this process the grain is delivered at one end of the scourer bright and clean and ready for grinding.

The Hercules Buckwheat Scourer is made in six sizes, the largest having a capacity of 150 bushels per hour. The manufacturers, the Hercules Manufacturing Company of Cardington, Ohio, believe their machines have some peculiar features that will warrant an examination.

THE WESTERN MILL SHELLER.

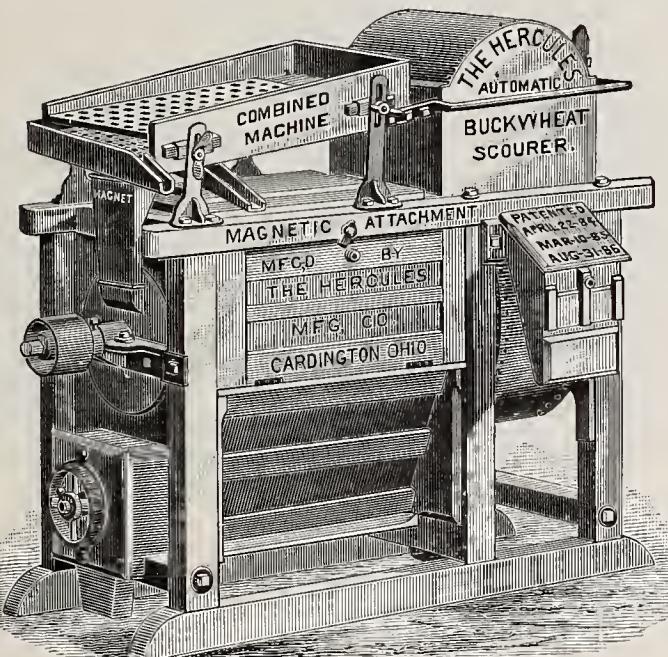
The prime qualities that go to the making of a good machine—simplicity, durability and excellence of work done—are all claimed for the Western Mill Sheller, of which a cut is presented herewith. The simple



THE WESTERN MILL SHELLER.

conveniences which belong to a machine should not be overlooked; indeed, nowadays the efforts of the inventor are much in that direction. Elevator men like a luxury to follow a necessity.

The chief mechanism of the Western Mill Sheller consists in a truncated cone cylinder keyed on a heavy shaft and surrounded by two casings which form another cone around the revolving cylinder. The two cones are on different planes, so that the space between the two shelling surfaces at the apex of the cones (where the corn passes from the hopper to the sheller) is greater than at any other point. Toward the base of the cones the space gradually diminishes,



THE HERCULES AUTOMATIC BUCKWHEAT SCOURER.

and at the end there is only room for the cohs to escape when freed from corn. The shelling surfaces are chilled steel and very durable.

At the bottom of the receiving hopper, which is reversible, are chilled steel feeders so placed as to insure a steady feed. The feeders are keyed upon the shaft in conveyor shape and may be changed to run with or against the sun. The sheller may be adjusted to accommodate different sizes or conditions of corn by moving the cylinder and reducing or enlarging the space between the shelling surfaces.

The hull of the corn is greater when first received into the sheller, and as it is being shelled it is gradually thrown back by the centrifugal force of the revolving cylinder filling the space according to the diminishing hull of corn. The corn is shelled clean from the cohs without being broken or cut up and a suction fan removes impurities. Thus the Western Mill Sheller

is self-feeding, dustless and easily adjusted. It requires but little power, running at a maximum speed of 600 revolutions. Its capacity is 60 to 76 bushels per hour. Further information regarding this machine may be had from the manufacturers, The Union Iron Works, Decatur, Ill.

PLEADING FOR THE RECEIVER.

As said before, the hay trade, both at the shipping and receiving ends, have a great many obstacles to contend with, and speaking from the receiver's standpoint we find there is one particular straw that stands in the way of the successful and satisfactory handling of the goods consigned to his care. The commission dealer receives an invoice of a carload of hay; it is bailed Prime or No. 1, as the case may be, but when the car arrives and is opened up for the inspection of the would-be buyer, everything appears to be as bailed, and it looks to all appearance as a prime article; the outward appearance of the bale or bales is bright, green and fresh looking and the consignment is sold and delivered to the purchaser; but at this stage of the game an obstacle presents itself; the purchaser or his man has opened a few holes, preparatory to utilizing the same, and upon closer investigation he finds that instead of being what it is represented to be, or rather what its appearance indicated it to be, it was filled with rakes, siftings, dust and seeds, which had been placed through the hole during the operation of pressing, possibly through no evil intent to cheat, but simply to clean up the floor and get rid of a lot of waste that was of no material value to the owner. Of course the purchaser kicks; he returns to the party from whom he purchased the hay, presents his grievances, and tells him so and so is the case, the hay is absolutely worthless for my purpose, I cannot use it; it is filled with everything else almost but hay, and certainly is not a prime article, such as I purchased, and I cannot take it. The receiver tries to fix it up some way with the purchaser, and writes to the shipper, giving him all the details regarding this consignment, and the shipper, who possibly may not have seen the hay at all, but has relied entirely upon his

buyer's judgment, and the buyer upon the farmer's or presser's word, thinks there is a "nigger" in the fence at the receiver's end.

Now, wherein does the trouble lie? It certainly does not lie at the receiver's end of the road; neither does it lie wholly with the shipper; but it does lie with him to know that every pound of hay he ships to market is of the quality he bailed it at. To make a success of the business it is certainly his duty to know that every car he consigns is right in every particular as to grade, quality and weight. He should not rely too much upon the judgment of others, but take particular pains wherever it is possible (and he should make it possible) to see that the hay has been bought right; to know that it is what it was represented to be, and not to take every Tom, Dick and Harry's word. Then if there is any grievance to adjust he knows what he is talking about, and does not have to rely upon a third party to satisfactorily adjust matters.—*Hay Trade Journal.*

It is hardly possible for the shipper to examine every bale bought. Like the receiver, he has not time to make a microscopic examination of everything he handles. If he would buy hay in bulk and bale it himself he could depend upon its quality, a thing he cannot do as long as it is baled by farmers.

There is altogether too much smutty wheat coming in from Duluth this fall for the reputation of that port, writes the Buffalo correspondent of the *Northwestern Miller*. The Buffalo trade will not stand any such nonsense, and a fuss is being made about it. There is an 80,000-bushel cargo now in prospect of rejection. Of course, the trade maintains that the smut will blow out, or, at least, scour out, but millers do not agree, and if they will not buy smutty wheat that settles the matter. If this wheat continues to come here with a good grade attached to it, something will have to be done to stop such practices. Buffalo has never catered to this sort of thing, and it is not going to now.

MEETING AND BANQUET OF ILLINOIS GRAIN DEALERS.

The Central Illinois Grain Dealers' Association held a meeting at Decatur on Wednesday, October 31. President Baxter called the meeting to order and Secretary B. S. Tyler recorded the proceedings.

The meeting was one for business purely and it was the expressed wish of the members that farmers might have been present to hear all that was said, for it could then have been made to appear to them that whatever the advantage the grain dealer might secure for the benefit of his own business meant an advance price to the farmers.

The meeting was rather informal. The first matter discussed was the shortage complained of at Chicago. It was suggested that as a remedy for this the association should agitate in favor of public warehouses and public weighmen.

The subject of mutual insurance of elevators was also discussed at some length.

The members of the association were urged to show to the railroads the necessity of getting cars for the early movement of the crops, it having been the common experience that farmers want to move their corn



S. S. DAISH.

early. The members were urged to ask the railroad men for cars for an early movement of the grain.

Several matters of legislation were discussed, and it was resolved that the association should, at the next meeting of the legislature, lay before that body the grain dealers' grievances. Chief among these is what is known as the Landlord and Tenant Law. This law provides that a landlord may follow grain sold by a tenant to the hands of an innocent purchaser, provided that the rent upon his land has not been paid. The grain dealers insist that it is the business of the landlord to look after his own rents, and that when the grain dealer once pays for the grain that is quite enough.

The meeting was attended by 100 members of the association, and at the banquet there were not less than twenty more, chiefly made up of division freight agents, local agents, line agents and others of the railroad service. The business meeting adjourned at 10 o'clock and the members then repaired to the St. Nicholas Hotel, where the banquet was spread.

The address of welcome was made by W. C. Jones, who said that "Decatur is always ready to welcome such a gathering. Perhaps no men in any business are trusted as the grain dealers are. The farmer has his load weighed, comes back and has his wagon weighed, never looks at the balance, never questions the weight. There is no similar business of like magnitude where there is such implicit confidence. The grain dealer is a useful and absolutely necessary middleman. The cash is always forthcoming. The grain dealer is the farmer's reliance when he wants to pay his taxes. The city of Decatur is the growth of her own citizens. There is very little foreign capital in

it. Its manufacturers, its stores, its jobbers are operating on the money they have made here. It is very appropriate, too, that you should meet here in the garden spot of the farming world. On all sides lies the largest body of farming land to be found on the globe."

The banquet was then served. The menu was as follows:

MENU.	
Anchovies Romaine.	
Blue Points.	
Consomme Julienne.	
Salted Almonds.	Celery.
Baked Red Snapper, Shrimp Sauce.	
Pommes au Gratin.	
Sweet Breads, en Caisse.	
Asparagus Tips.	
Frogs' Legs Fried in Batter.	
Duchess Potatoes.	
Sorbet au Kirsch.	
Roast Quail.	
French Peas.	
Chicken Salad.	
Olives.	
Mikado Ice Cream.	Assorted Cake.
Fruit.	Mints.
	Coffee.

C. L. Hovey of the Illinois Central responded to the toast, "The Relation Between the Local Agent and the Grain Dealer." He spoke of the difficulties of days gone by, when rebates were the rule, but now no longer in vogue; of the shortage of cars, of the troubles en route, and the causes for difference of opinion between the local dealer and the railroad. He said that he had yet to meet the first grain dealer who sought to get the local agent into trouble.

"Through Freights" was the toast which was responded to by W. D. Wilson, a tall line man from Indianapolis. He said: "I did not know they wanted me to talk to you until a few minutes ago, but I always make it a point to be useful as well as ornamental.

"In the subject of the toast, 'Lower Rates and Quicker Time is the Prayer of the Grain Shipper,' we have two very important matters connected with railroad business, and which are of as great importance to the shipper as to the railroad. The shipper and the carrier should work in entire harmony with each other.

"The first part of my subject is lower rates. We often find a difference of opinion as to what constitutes low rates. The different roads and lines (and let me say right here that I represent the Lackawanna line. I do this that you may not get me mixed up with some of those second-class lines which connect nowhere and end in the same place) fix on agreed rates from time to time and change them as circumstances demand. With plenty of business and a good demand for cars, a rate of 25 cents Chicago to New York is not as high as 20 cents with no business at all.

"For example, take the present basis of 20 cents Chicago to New York, which makes 18½ cents. Take from that 3 cents terminal and 2 cents transfer Grain Door Association charges, and the roads hauling the car would be out more than they received. Equal rates to all and sufficient business to keep the rolling stock employed will insure prosperity. The law of supply and demand makes the rates.

"A line man wants business of course. He must keep in close touch with grain dealers. I want to tell you that I am a line man for the Lackawanna, and I hope to touch you with my remarks. There was a time when the Lackawanna paid a rebate without violating a rule. Of course the line man gets his salary all the same, and it don't make any difference to us, but the men in the general freight offices have figured out that on the basis of 20 cents from Chicago, when a road has paid switching charges, mileage, repairs and a few grain doors at \$1.40 each, it is out just 15 cents. Nevertheless, we want business.

"Now suppose we look for a moment at the matter of quick time, for that is the kind of commodity we deal in. Shippers, as a rule, want their freight hurried through, and their wishes are complied with as far as possible. But there are times when the shipper is as much to blame for delay as the railroad. Some shippers want slow while others want quick time. Then again the markets have a great deal to do with the matter of time. If the markets are advancing time is not an important matter, but if they are de-

clining, then 'Rush' is the word. So let me say that it is of vital interest to both carrier and shipper that we work together and keep in touch with one another.

"Now, one of my customers asked for a big car—we never have any other kind. He loaded the car and the scales were out of order—they are always so. When that car got to Buffalo it had to go in the shop for repairs, for it is of 60,000 pounds' capacity and it was loaded with 80,000 pounds. It never did get to New York, for it broke down on the way. But still we want business. Nobody appreciates good steady rates and an equal show for every man any more than the grain dealer. And now, gentlemen, out here you have raised plenty of stuff, and as it seems to me, with good rates, quick time and plenty of grain to move, there is no reason why we should not all prosper under a Republican administration—I am a Republican." His address was frequently interrupted by laughter and cheers.

H. C. Mowrey of Forsyth talked about "The Farmer and the Dealer." He said: "They tell us that the scales are no more accurate than the relations between farmers and dealers should be. That is good. I like to see it that way, but if the scales are as inaccurate



JOHN B. DAISH.

as farmers tell me about some scales then our relations should be closer. I believe in farmers and we live off of them. We are reasonably well fed to-night, and this we owe to farmers, who take the hard knocks and bring up the wealth from mother earth. They produce all that we handle. They would never get as much for their grain without us. The farmers are the greatest class in America. They produce the crops and the brains of the country. The brightest pages in American history bear the names of those from the farm. And the reason I am here to-night, the great giant that I am, is that I am backed by six generations of farmers. All who live on farm products are not farmers. We live on them. This brave city of Decatur is wrought out of the wealth that farmers have brought forth. The farmers are beautifying this country. They are making the prairie wilderness to blossom like the rose. We have three mighty factors for prosperity. The Lord Almighty furnishes the farm, the farmer raises the crops and we are here to handle them."

President Baxter then declared the banquet adjourned. The banquet was pronounced the greatest success of any held by the association.

It looks as though Canadian hay will be selling at low prices this winter, as there has been a heavy crop and outside markets are scarce. The United States markets have disappointed Canadian shippers.

Under the new tariff, bags once used for shipping wheat are second-hand and may be imported into this country free of duty. Millers are beginning to realize that these bags can be obtained very cheap and are useful for packages of millfeed, bran, etc.

THE WASHINGTON GRAIN ELEVATOR AT WASHINGTON, D. C.

The Eastern states can boast of having many large grain elevators, but the majority of them are located in the large grain centers of the North. This condition of affairs has endured many years, but the Southern cities are gradually gaining in the number and size of grain elevators. One of the latest and best of these elevators we illustrate herewith. It was built and is owned by S. S. Daish & Son, Incorporated, at Washington, D. C., and is located at Florida and Delaware avenues Northeast, adjoining the New York avenue yard of the Baltimore & Ohio Railroad Company.

The elevator is a brick structure and has a cement foundation. The main building is 32x80 feet and 112 feet high, with a capacity of 200,000 bushels of grain. The first story is 14 feet high and contains a 150-horse power engine, with suitable boilers, two runs of burrs

ity of 100,000 pounds. The grain is removed from the cars by steam power shovels, and is handled entirely by machinery until it is taken out of the bins and put into sacks. The elevator is conveniently arranged throughout and is the result of much careful study and investigation. The principal large elevators of the East and West were closely studied and each good point in the different houses was noted and has a place in this elevator.

The firm of S. S. Daish & Son was reorganized and incorporated last April with a capital stock of \$75,000. The present company succeeded to the former firm of the same name. They do a wholesale and retail business in flour and feed and do not confine their business to Washington alone, but sell in all the Eastern and Southern markets. They are extensive contractors in their line to the government and supply large quantities of forage and subsistence supplies to the horses and men in the government service. The firm receives its largest supplies of grain from Ohio,

years of his life in Virginia, removing with his parents to Washington in 1872. Mr. Daish is a graduate of the public schools of the District of Columbia, and was given the degree of A. B. by the Johns Hopkins University in 1888. He evinced business traits very early in life, and was admitted as a partner in the feed business in 1889, and was made president of the company upon the retirement of S. S. Daish from active business in April of this year. Mr. Daish is a great traveler, and has made hosts of friends throughout the Eastern and Central states.

CLASSIFICATION OF GRAIN PRODUCTS.

By a recent action of the appropriate committee, cottonseed hulls in carloads were added to the list of grain products which, under the present arrangements, take grain rates. Such a ruling is in perfect harmony with and in strict conformity to the practice



THE WASHINGTON GRAIN ELEVATOR AT WASHINGTON, D. C.

for corn products, one Pease Oat Clipper, one Vortex Dust Collector, grain cleaning machinery and the spouts from the 20 bins above. The first floor also contains two receiving sinks, two elevator boots, the legs of each of which have a capacity of 3,000 bushels per hour. The machines are driven from suitable pulleys on the main shaft, which is 70 feet in length. All the corn shelling and flour blending machinery was supplied by the Barnard & Leas Manufacturing Company, and the corn grinding machinery was manufactured by the Nordyke & Marmon Co.

The offices of the elevator are on the main floor. The bins are constructed of 2x8 and 2x6 planks, spiked together one above another. Each bin is 60 feet in height. Two cupolas, each 18 feet high, surmount the structure, and from the elevator heads in these grain may be spouted to any of the different bins.

Adjoining the elevator is a warehouse for hay and straw, which is 90 feet in length and has a capacity of 1,100 tons. A switch from the main line of the Baltimore & Ohio Railroad runs along the west side of the elevator and of the hay warehouse, and hay and straw, as well as grain, can be unloaded direct from the cars.

All grain is weighed on track scales having a capac-

Michigan, Indiana and Illinois. In the first three of these states they employ grain buyers and also own a number of hay presses at different stations through this territory. They also handle goods in their line on commission or receive into their houses grain and hay on storage. The firm is represented on the Chicago Board of Trade.

S. S. Daish, who established the grain and feed business in 1883, was born in Putnam county, Ohio, in 1842. He was left an orphan at the age of 13, without any means of support except by his own labor. Early in 1861 he enlisted in Co. H, 21st Ohio Infantry, and served during the entire war of the rebellion. At the close of the war he engaged in the grocery business at Chicago for a short time, going to Quincy, Mich., in 1866, at which place he was married to Miss Hattie A. Broughton. After his marriage he resided a short time at Manassas, Va., and in the fall of 1870 he removed to Washington, D. C., where he held a number of important positions until ill health obliged him to return to Michigan in 1881. In 1883 he again removed to Washington and established the business which has grown to so great a success.

The president of the company, John B. Daish, was born at Quincy, Mich., in 1867. He spent the first

now prevailing in regard to the classification of grain products, and is only referred to here as affording another opportunity of calling attention to the absurdity of the practice upon which the present system of classification is based.

No one has ever yet been able to say upon what theory such articles as cottonseed hulls, which in value, bulk, tonnage and every other transportation element are the antipodes of flour and kindred products, are properly chargeable with the same rates.

The mere reading of the articles included in the classification under the comprehensive term of "grain products" is sufficient to condemn the principle or rather lack of principle upon which it is predicated. Railroad men commonly, and we believe correctly, condemn the postal principle of rates as illogical and impracticable, but it would trouble the strongest opponent of that theory to point out wherein it was more inconsistent than the present classification of grain and its products.—*Railway Review*.

Charles T. Pierce, Lewisburg, Ohio: "The AMERICAN ELEVATOR AND GRAIN TRADE seems to grow more interesting with each number. I would not be without it for many times its cost."

AN AUTOMATIC DUMP FOR UNLOADING CARS.

The rapid handling of grain, especially in loading and unloading vessels and cars, is the object and source of profit of the modern elevator man; and especially for the latter process are many inventions being patented. The accompanying drawing shows an automatic dump for unloading cars which has been invented by C. D. Matheny of Seattle, Wash.

As will be seen, the inventor employs an old idea in a new way. It consists of a track platform with the track at one side of the center and a counter-weight *O* so adjusted as to permit the track to tip sidewise under the weight of loaded cars, and being sufficient to bring the platform back to a horizontal position when the car is unloaded. At *P* is the receiving sink which receives the load of the car.

The car is dumped by means of the lever working in conjunction with the toggle joint, the further motion being automatic. The track is supported on knife-edge bearings, and has independent eye bolts connecting the upper and lower portions of the dump to prevent the bearings from separating and securing a strong and steady movement when the toggle joints are broken in the operation of dumping.

THE SYSTEM OF GRAIN INSPECTION; ITS ESTABLISHMENT AND GROWTH.

NO. IX.

The Minnesota Grain Inspection and Weighing Department was established by a legislative enactment approved March 5, 1885. The act provided for the appointment by the State Railroad and Warehouse Commission of a chief inspector of grain and such deputies as were necessary for properly performing the work. It also established a weighing department with a chief weighmaster and necessary deputies. It provided farther for the appointment of a warehouse registrar and such assistants as were required. The law designated Minneapolis, St. Paul and Duluth as terminal points where such official work of inspection, weighing and registration is to be carried on.

The department commenced its labors in August, 1885, with a force of fifty-four persons employed in the following capacities: One chief inspector, three chief deputy inspectors, three first assistant deputies, nine deputy inspectors, six helpers, three state weighmasters, twenty deputy weighers, one registrar, three assistant registrars and four clerks.

The total number of carloads of grain inspected on arrival from the crop of 1885 was 97,653, of which 92,886 cars were wheat, and 4,767 coarse grain. Out of store there were 13,414 cars of grain inspected to cars, and 14,629,780 bushels to vessels. Since the inauguration of the work there has been a gradual growth of business which is indicated in a brief way by the following table:

NUMBER OF CARLOADS INSPECTED "ON ARRIVAL."

	No. Cars Wheat, In- cluding Winter.	Coarse grain Including Flax.	Total No. Carloads.
Crop of 1885.....	92,886	4,767	97,653
Crop of 1886.....	113,923	6,412	120,335
Crop of 1887.....	115,215	8,637	123,852
Crop of 1888.....	74,068	13,410	87,478
Crop of 1889.....	107,979	22,675	130,654
Crop of 1890.....	117,141	15,532	132,673
Crop of 1891.....	200,081	21,465	221,546
Crop of 1892.....	167,799	18,546	186,345
Crop of 1893.....	133,628	22,452	156,080

The grain inspected out of store during these years was as follows:

INTO VESSELS.

	No. Bush- els Wheat, Including Winter.	Coarse grain Including Flax.	Total No. Bushels.	Into Cars. Total No. Carloads.
Crop of 1885.....	14,518,813	110,967	14,629,780	13,414
Crop of 1886.....	21,340,663	206,468	21,547,131	24,004
Crop of 1887.....	16,867,410	206,563	17,073,978	30,899
Crop of 1888.....	5,561,111	1,428,069	6,989,180	32,175
Crop of 1889.....	17,416,788	3,575,480	20,992,268	36,467
Crop of 1890.....	14,807,431	1,792,871	16,600,302	50,764
Crop of 1891.....	44,189,798	943,388	45,133,184	68,634
Crop of 1892.....	34,208,218	857,317	35,085,535	55,356
Crop of 1893.....	20,926,482	1,103,886	22,030,368	39,025

As all grain which is subject to inspection is also subjected to state weighing, the volume of business

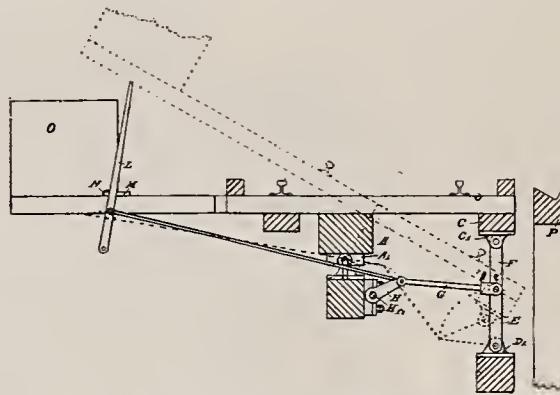
done by the inspection department during the period above mentioned indicates as well the work of the state weighing department during the same time.

No change was made in the law of 1885 until the legislative session of 1889, when the law was amended so as to include St. Cloud as a terminal point. No large amount of business is concentrated at that point, one inspector and one weigher being capable of doing the work. The receipts at St. Cloud will run to 4,000 cars per annum. It being a junction point and a milling in transit point, country shippers find it at times a valuable market, and their demands for official inspection and weight led to its establishment as a terminal point, under supervision of the inspection department.

We take the following from the chief inspector's report of Aug. 31, 1890:

"The present grain and warehouse laws were enacted in response to an overwhelming demand from all portions of the state for legislative protection against the injustice, alleged as being practiced in the matter of grain grading, at the terminal and interior markets of the state; it was asserted that the primary seat of wrong, and the fundamental cause of the existing evils was to be found at the terminal points, and in proposing to apply a remedy, the consensus of opinion led to the conclusion that if a fair, equitable and uniform system of inspection could be established at the terminal points, upon which the country buyer could depend with a reasonable degree of assurance, he in turn would establish his grades in conformity thereto, and thus the producer who was compelled to market his grain at the local station would secure indirectly the benefits of the new system.

"By virtue of this law the power to establish rules for, and supervise the inspection of grain, was removed from the then existing authorities, to wit: The



AN AUTOMATIC DUMP FOR UNLOADING CARS.

Chambers of Commerce of the cities of St. Paul, Minneapolis and Duluth and vested in the Railroad and Warehouse Commission and the State Grain Inspection Department, thus securing a disinterested and impartial tribunal for the administration of this important work. The law was framed very closely after the grain law of Illinois, providing, however, in addition, for the state supervision of weights, a feature not included in the Illinois statute.

"When the state assumed control at the terminal points it found the work of inspection in rather a chaotic condition, each Board of Trade being governed by its own standard, and these individual standards constantly shifting, seemingly to suit the exigencies of the market. Under these conditions the country buyer was kept in a state of constant excitement and anxiety, uncertain from week to week as to the grades he could base his own purchases upon; and not only in the matter of grades, but concerning weights at terminal points, frequent complaint was the rule. The inauguration of the new system of state inspection and weighing was received with congratulations, therefore, on all sides, and hailed as the harbinger of a better era.

"When the present grain laws were established they were deemed the only practicable solution of the existing difficulties, and three distinct beneficent results were confidently expected from them by those who demanded and by those who devised and enacted them; first, that fair and equitable rules would be established for the classification of the grain products of the state at the terminal points; secondly, that an honest, intelligent and uniform interpretation of those rules would be observed in the execution of them; thirdly, that these conditions being established at the terminal points, local buyers would not only be enabled to conform to them and deal in a uniformly just manner with the farmer, but that, as a logical sequence, this result would naturally follow.

"That the beneficent results expected from the measure have been felt in a marked degree throughout every portion of the state, there can be no gainsaying. Many of the evils which formerly existed have been mitigated, if not entirely eradicated, and fairer grades and more accurate weights at interior points are generally the rule; perhaps the hopes and expectations of those who framed the laws have not been fulfilled so completely in this respect as was anticipated; evils still exist and incidental wrongs are

still perpetrated, justifying, no doubt, many complaints that are made. No system could be devised that would entirely obliterate evils in which fear of loss, inexperience and cupidity play so large a part."

At the legislative session of 1893 new grain legislation was enacted for the purpose of strengthening and supplementing the terminal inspection law. On the recommendation of the department a law was enacted (Chapter 29, Laws of 1893) to provide for the care and protection of grain in cars at terminals; this law has been in operation for over twenty months with very marked beneficial results.

It provides for the examination of the condition of cars on arrival by the inspectors and a record of the same; a record of seals is also taken before opening cars for inspection, and state seals substituted after the inspection is performed.

It provides for a similar system of sealing on the part of warehousemen, millers and others who may have charge of grain in cars and in which the interests of a second party are involved. Severe penalties are prescribed for unauthorized persons convicted of breaking or tampering with said seals. All persons interested seem to have appreciated the serious importance of abating the evils caused by the pilfering of grain on track, and have promptly complied with the provisions of the law, so that the system may be said to be in perfect operation and highly successful.

The number of reports of small shortages at the different weighmasters' bureaus have been reduced fully sixty per cent. during the operation of the sealing system, as compared with the number preferred during a similar period the year previous. The track thief no longer can plead that his stealings are sweepings and thus escape conviction. To get the grain he must break the seal, which is a statutory offense; convictions are now easily made, and the numerous depredators who formerly subsisted by this means have been practically driven out of business.

Another law, known as the country warehouse law, was enacted by the last legislature; its intention being to regulate the public country warehouses by bringing them within the jurisdiction of the Railroad and Warehouse Commission. No attempt is made by the department to determine the grades of grain at country points, except in an advisory way; and, with this in view, it is made incumbent on the chief inspector to examine samples of grain sent him by parties interested, whenever a controversy arises at country points, and to determine what grade and dockage the said grain, in his opinion, would receive if sent in carload lots to terminal points and subjected to official inspection. Many samples have been received by the chief inspector under this law, and his decision has settled a great many disputes, the parties in dispute having previously agreed to abide by the decision, whatever it might be.

The main purpose of the law was to furnish the farmers of the state with a tribunal before which their serious grievances and complaints of injustice of any nature could be laid and considered with a view to their redress. The jurisdiction of the Railroad and Warehouse Commission was formerly confined to the four terminal points; now it is extended for the purposes above mentioned to the country points. Strange as it may seem, since the enactment of the law, complaints concerning unjust practices against country warehousemen have almost entirely disappeared, and a better feeling pervades the interior markets of the state. Whether this condition will continue is a question: yet the law seems to have proven a panacea thus far for many ills, real or fancied, which formerly existed.

The efforts of the department to establish a fixed uniform standard of inspection at the terminal points have been rewarded with reasonable success.

The inspection of grain is not a mathematical problem, but is based upon human judgment; this being the case, nothing short of omniscience would insure absolutely correct results in all cases, but that the work is honestly and impartially done, by the best men obtainable, cannot be successfully disputed, and with the system of re-inspections and appeals no shipper or owner of grain is deprived of means of redress for his grievances.

During the nine years' existence of the department there has been a gradual and steady improvement in the character of the service rendered. This has re-

sulted from enlarged experience and the adoption of improved and systematic methods. In the inspection department a strict observance of civil service rules prevails, and none can secure or are promoted to the important and exacting position of inspector, until he has served in a subordinate capacity and been subjected to a rigid and thorough training. In the weighing department only the most intelligent, honest and capable men are selected to fill vacancies, or such new positions as necessity may create, with a view to ensuring the most accurate work possible. Political considerations have been eschewed, and only the best qualified men chosen for the work. A canvass of the political bias of the members of the department would disclose the fact that every known shade of political belief is represented. An applicant's politics are neither a qualification for, nor a bar to his appointment; if he meets the test of qualification it is sufficient.

Among the improvements in the service which have shown marked beneficial results is the system of placing additional weighmen in the lower part of the elevators to work in conjunction with the weighmen at the top, for the purpose of keeping a complete record of all irregularities in handling, unloading or sweeping cars. It is a most effective check against errors and careless handling. In fact, so many safeguards have been thrown around the work of weighing that mistakes are necessarily very rare, and the possibility of errors is reduced to the minimum. Under the methods of careful training which are pursued in the inspection department, as before referred to, complaints as to grades are constantly decreasing, and general satisfaction with the work prevails. Thus it will be seen that the crude methods which characterized the commencement of the work in 1885 have been supplanted by a most careful, methodical and accurate system.

The large gain in the volume of business and the multiplication of elevators, mills and railroad inspection yards during the past few years has made it necessary to add correspondingly to the working force. The number of persons employed at present is one hundred and thirty, divided as follows: One chief inspector, four chief deputy inspectors, three supervising assistant inspectors, sixteen deputies, five sub-deputies, twenty-four helpers, four state weighmasters, forty-nine deputy weighers, one warehouse registrar, three assistant registrars, one chief clerk and nine sub-clerks.

The Railroad and Warehouse Commission are W. M. Liggett, George L. Becker and Ira B. Mills; A. K. Teisberg, secretary. The office of the commission is at the state capitol, St. Paul, Minn. The officers of the inspection, weighing and registration departments are as follows: A. C. Clausen, chief inspector, St. Paul; chief deputies, T. D. Strait, Minneapolis; C. S. Fulton, Duluth; J. F. Low, St. Cloud; George E. Squires, St. Paul; C. M. Reese, state weighmaster, Minneapolis; J. G. McGrew, state weighmaster, Duluth; E. C. Becker, state weighmaster, St. Paul; J. C. Munro, state weighmaster, St. Cloud; warehouse registrar, A. K. Teisberg, St. Paul; assistant registrars, Samuel Goodnow, Minneapolis; B. Porter, Duluth; E. C. Becker, St. Paul.

[TO BE CONTINUED.]

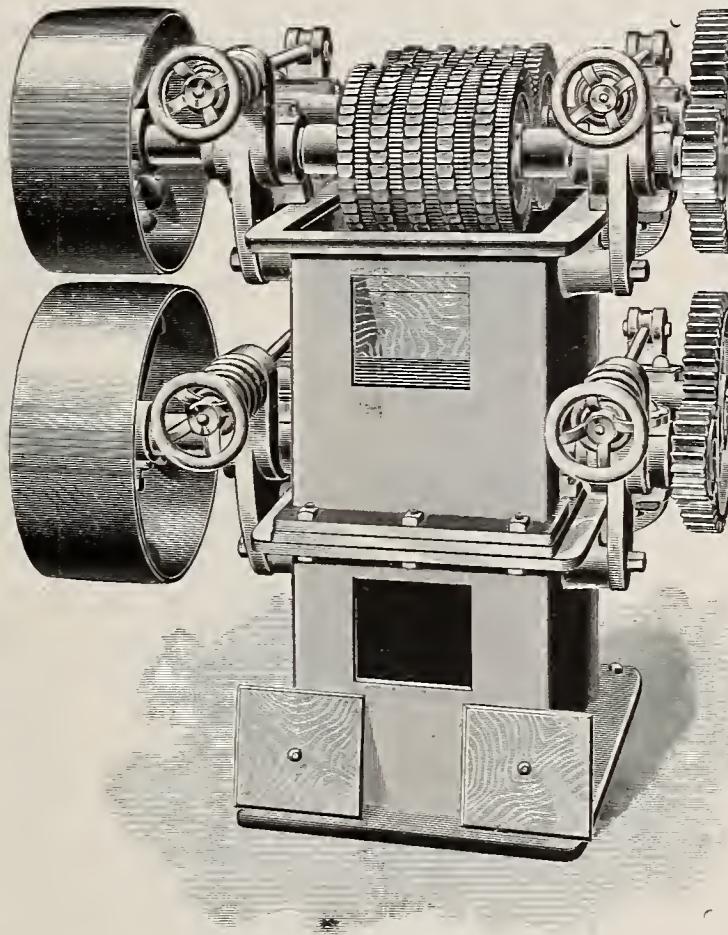
C. A. Pillsbury, the Minneapolis miller, says: "If wheat keeps under 60 cents for two or three months longer the advance when it comes will be like a whirlwind; irresistible and so quick the public will neither get in to make money nor get out of shorts except at great loss of money. The Northwestern receipts will be fairly liberal for several weeks yet. The farmers had to sell, or wanted to. The railroads, with little else to haul, furnished cars just as fast as the shippers called for them. There have been no such delays this year as in other seasons when business has been good and when there has been a great deal of tonnage to be taken care of as well as wheat, and when, as a consequence, farmers have had to wait and ship as they could. Usually there is a pause in wheat movement with us in the late fall and then a renewal when freezing begins. This year there has been no pause and there will be no renewal."

A NOVEL STYLE OF FEED ROLL.

The Edw. P. Allis Co. of Milwaukee, Wis., has recently placed on the market a new style of roller mill for feed grinding, of which an engraving is shown herewith. The top pair of rolls have coarse teeth, which are designed for the purpose of reducing ear corn small enough to be ground fine on a pair of corrugated rolls below, which receives the crushed ear corn as it drops from the toothed rolls and finishes the same into feed.

At the same time a stream of oats, barley or rye can be fed in with the ear corn and a nice mixed feed is the result. A close examination of a sample of feed ground on these rolls fails to show the presence of cobs in it, as the feed is so even in size and so well mixed that the ground cobs have their identity lost in the mixture. The machine is also made three pairs high, and there are several sizes of rolls made.

When the elevator man desires to make table meal or to grind small grain into feed, a pair of corrugated rolls can be put in place of the cob crushing rolls. When desired, the cob crushing rolls, with its frame,



A NOVEL STYLE OF FEED ROLL.

adjustments and fixtures, will be furnished alone. The Edw. P. Allis Co. have sold a number of these roller mills, and each purchaser speaks very highly of the results obtained.

A BRITISH WHEAT CLEANING PLANT.

The British system of cleaning grain, which is often called the steam laundry system, was made necessary by the great variety of dirty wheat shipped to that market. Our grain handlers never receive grain near so dirty and so have no use for such an extensive system of grain cleaning machinery.

A contributor to *The Miller* of London writes as follows: With respect to the wheat cleaning, how is this for a "system?" The uncleared wheat is passed first over section I of a large warehouse separator, then over a grader, and thence over a system of eight barley and cockle cylinders, from which it passes to a magnet separator, before finding its way to a pair of double No. 4 horizontal scourers, whence it is taken to section II of the warehouse separator already mentioned. If necessary the grain can then be put through a Simon washer of large capacity, which is served by a couple of whizzers. Finally, to take out all the moisture there are four double dryers. After passing from the dryers the grain is taken to a Victor Brush, and thence to the clean wheat bin. But it is

not fed into the first break hopper until it has been treated on a Simon "Dustless Aspirator."

THE STABILITY OF GRAIN SILOS.

NO. IV.

Another and more important factor remains still to be taken into account, namely, the leverage, which affects the stability of a wall enormously.

The height of 20 feet from the ground to the center of pressure forms the long arm of a lever, and the distance from the outside of the wall at bottom to the center of gravity of the wall, about half its thickness, is the short end of the lever. The wall in question, at its base, is $2\frac{1}{2}$ feet thick, but making some allowance for footings and piers—if any—it is assumed for the question of leverage that the wall at its base is 3 feet thick, which will give the center of gravity at $1\frac{1}{2}$ feet from the outside, but, to make every possible allowance, say 2 feet—then the leverage becomes 20 to 2, or 10 to 1; therefore, under favorable circumstances, the thrust of 85 tons at the center of pressure 20 feet high is accentuated 10 times, and becomes 850 tons, lying, as it were, in wait ready to take advantage of any weakness in the wall to overturn it.

The leverage would not come into effect until the wall yielded, or a fracture occurred, but the moment a deviation took place by the wall heeling onto the edge of a joint, or the toe of the wall at a set-off, or at the footing, or by the crushing or failure of the bricks at these edges or points, or the continuity of the solid mass of wall become broken from whatever cause, the leverage would come into action with tremendous effect, and the downfall of the wall would be certain.

At the first set-off, 20 feet from the ground, the leverage becomes greater, owing to the diminished thickness of the wall. The average pressure above the 20 feet is 67.5 tons, as against 76.5 tons, the weight of the superincumbent wall; the center of pressure would be 13 feet above the set-off, and the thickness of a wall which is 2 feet gives the center of gravity at 1 foot, therefore the leverage is 13 to 1. The relative proportion of weight to pressure is much less than 5 to 3, therefore the wall at this part is unstable unless judiciously stayed, while if any defect occurred in the wall caused by bad bricks or inferior mortar, settling of the foundations, etc., the enormous leverage coming into force would at once demolish the structure, breaking away the wall at the set-off, where the thickness is reduced, without fail.

From observation of the failures of silos, the wall invariably opens outward at the bottom or at the first set-off, and in one notable instance, where the outer wall of a silo fell, the upper part, where the pressure, as expected, was least, remained intact, while the lower part was forced outward and collapsed into the street.

It is apparent that the greatest attention should be given to the quality of the materials—viz., bricks and mortar—and the thickness of the walls be in proportion to the lateral stress that they have to resist. It is also of great importance that the set-offs should not be abrupt, but the walls should diminish from the greater to the lesser thickness gradually, and that the bed joints of footings should be sound, and the staying judiciously placed.

As previously stated, but little is known for certain concerning the actual lateral pressure of grain against the walls of silos, and that all rules pretending to solve the problem, being based to a certain extent on assumption, are of necessity more or less empiric, therefore the conclusions arrived at herein may be wrong; but it is an attempt to get at the solution of the question, and the purpose intended will be served if attention is drawn to the subject sufficient to enable decisive experiments to be made, and thus set the question at rest regarding the stability of such structures.—James Donaldson in the *Millers' Gazette*, London.

San Francisco is the only market in the world where the shipments of wheat exceed the receipts, and then show an increase in supplies.—*Chicago Trade Bulletin*.

MAN WITH WHEAT IN STORE HAS THE NIGHTMARE.

Who is this, while I am weary,
Weary of my wheat in store,
Who comes rapping, gently tapping,
Tapping at the warehouse door?

I arose, the door to open,
Opened it and gazed before;
But saw nothing at the portal,
Nothing at the warehouse door.

But a voice which seemed to issue,
Issue from beneath the floor,
Said, "My boy, I now am with you.
With you, and your wheat in store."

"Spirit be ye, or still mortal,
Mortal now or nevermore,
Speak again, I do implore you,
Why you're with my wheat in store."

"Be ye goblin damned or devil—
Devil damned, speak out before
I go in beside my wheat bins—
Go right in and shut the door."

"You may shut and keep on shutting,
Shutting of your warehouse door,
But I'm in and mean to stay in;
Stay in every crack and pore."

"I'm the Nemesis of evil;
Nemesis, and out of gore:
I'm the weevil, bug of evil,
Filled with wheat and after more."

From the Toledo Market Report.



[We invite correspondence from everyone in any way interested in the grain trade, or all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

SHIPPING AT TACOMA.

Editor American Elevator and Grain Trade:—According to the report of the harbormaster of the port of Tacoma, Wash., for the month of October, the total exportation of breadstuffs was as follows: Wheat, foreign, 615,537 bushels, valued at \$251,800; wheat, coastwise, 304,000 bushels, valued at \$121,000; flour, 35,979 barrels, valued at \$72,153. The inward registered tonnage was 59,569 tons, outward registered tonnage 42,378 tons; inward cargoes amounted to 6,789 tons, outward cargoes 64,379 tons.

SAMUEL COLLYER,
Secretary the Tacoma Chamber of Commerce.
Tacoma, Wash.

THE GRAIN TRADE IN MINNESOTA.

Editor American Elevator and Grain Trade:—I have recently returned from a trip through Northern Iowa and Minnesota, and although prices of cereals are low I have found business in a very fair condition. In Minnesota I found all the elevators full to overflowing. Barley is moving out of the state very rapidly and I think in a few months there will be none left. Still prices will not advance, as there is hardly any demand. Oats are still plentiful in farmers' hands and the majority are holding for higher prices. There is plenty of flax and timothy left to be marketed, and also large amounts of buckwheat remaining unsold. Farmers are still feeding wheat, but this is an old story. Farmers will soon be able to say with a great deal of consistency: "Well, it's time I should market my wheat," and they'll commence shipping their hogs.

Very truly yours, BOARD OF TRADE.

THE NEW TOLEDO ELEVATOR.

Editor American Elevator and Grain Trade:—The iron elevator at Toledo, Ohio, built by the Pneumatic Transfer and Storage Company, being a departure from methods heretofore used in handling and storing grain, cereals and seeds, is of unusual interest. It is a well-known fact that the ordinary methods of storing and handling grain are far from satisfactory, not so much on account of any imperfections in the materials and machinery which are employed, for they are as perfect as mechanical skill can produce, but because the principles involved in their con-

struction and operation are not calculated to secure the results desired.

The new Toledo Elevator, while it demonstrates the practicability and value of the Smith Pneumatic Transfer and Steel Storage System, is necessarily somewhat crude and imperfect, owing to its being the first plant built for that special line of business, and also because of several unfavorable conditions which developed difficulties that would not usually be met with.

I have seen the Toledo Elevator in operation and examined it carefully, and am convinced that the new system is bound to revolutionize the present methods of handling, treating and storing grain, seeds and many other articles liable to damage by exposure.

Toledo, Ohio. J. C. Cox.

ANOTHER CHANGE WANTED.

Editor American Elevator and Grain Trade:—I inclose herewith with a picture from one of Zahm's circulars, which depicts vividly a condition of the market very much longed for by the great majority of the actual dealers in grain of this country. The desire, which has been growing stronger, is being reinforced by conditions which strengthen the conviction of every dealer in grain that wheat is too low. Stocks of wheat in Europe are very small and the farmers of this country have fed most of their old and their poor

elapse before I get my wheat is something I cannot explain. Perhaps some Western grain man can enlighten me? Nor do I kick at the railroads charging \$1 a day demurrage when a car remains over 48 hours without being unloaded, but a little reciprocity in the way of accommodation would be very agreeable.

I suppose I will have to take out my dissatisfaction in kicking, but at least I can register the opinion that for ways that are dark and tricks that are cute, the heathen Chinee can't come up to the Western grain shipper.

NEW JERSEY.

GRAIN HANDLED BY ELEVATOR AT NOVOROSSISK.

Editor American Elevator and Grain Trade:—The accompanying table shows the amounts of grain received and shipped at the elevator at Novorossisk (an exhaustive description of which appeared in the AMERICAN ELEVATOR AND GRAIN TRADE for October) during 1892 and 1893:

Some of the terms used will need explanation. Garnoffka is hard wheat (*triticum durum*) and is grown in the South. Sowigea is miscellaneous grains. Makooha means tops, in which classification is the refuse of oil production. This includes the grain meat and hulls of various kinds of seed, such as hemp, flax, etc., and is used as fodder. The amounts of grain in the following table are in poods. One pood is equal to about 36 pounds avoirdupois.

	1892.		1893.	
	Received.	Shipped.	Received.	Shipped.
Wheat.....	9,501,535	6,824,468	13,670,975	12,446,116
Garnoffka.....	1,333,380	1,296,275	4,266,627	4,086,197
Rye.....	2,690,863	1,756,270	913,380	1,321,176
Sowigea.....	1,461	50,961		
Barley.....	2,744,881	2,126,908	3,282,338	2,637,033
Oats.....	404,699	278,384	901,997	813,169
Corn.....	320,059	258,896	170,254	167,186
Flaxseed.....	2,529,573	2,999,591	3,525,783	3,360,983
Rapeseed.....	102,633	184,716	177,854	74,324
Makooha.....	52,512	49,180	89,760	64,553
Bran.....			11,606	
Total.....	19,681,596	15,825,649	27,010,574	24,970,737

Yours very truly, ALFRED F. BENDER,
St. Petersburg, Russia. Engineer.

THE ILLINOIS GRAIN INSPECTION SYSTEM.

Editor American Elevator and Grain Trade:—Being interested in the articles published in the AMERICAN ELEVATOR AND GRAIN TRADE dealing with the establishment and growth of the system of grain inspection, I wish to add a few facts that may prove of interest to the trade. These are the result of my own personal experience and observation.

Previous to the establishment of the state grain inspection department the inspector of grain at Chicago was under the management and control of the Board of Trade. The directors of the Board then, as now, made certain houses regular for the storage and delivery of grain under the rules of the Board. The directors appointed inspectors who performed the duties now undertaken by the state inspectors.

The developments following the failure of Munn & Scott convinced the trade that greater safeguards should surround the inspection of grain and the issuing of warehouse receipts. The agitation and discussion following this failure resulted in the passage of a law by the Illinois Legislature creating the state grain inspection department and taking the matter out of the control of the Board of Trade.

It is worthy of note that Illinois was the first state to adopt state inspection of grain. Many other states have since adopted it.

The Illinois law provided for the appointment of a chief inspector, who was to have general supervision of the department, and whose decision upon all questions of grade was to be final. The law provided also for the appointment of assistant inspectors and defined the duties of the chief and his assistants.

Under the practical working of this law it was soon discovered that the powers of the chief were too great. It was this belief that led to the establishment of the committee of appeals. Mr. C. E. Culver, then president of the Board of Trade, and Mr. Wm. H. Harper drew up the bill creating the committee of appeals, and Mr. Harper took it to Springfield and prevailed upon the Legislature to pass it. This committee is now the "court of last resort" for all disagreements as to grade. Mr. Frank W. Tompkins



THE BULL ON THE WARPATH.

wheat. The stock of wheat in farmers' hands has been materially reduced, but the quality of that remaining in their hands is of superior quality.

The desire and the convictions of the actual dealers is now very strong, and the day may not be far distant when they will unite and bring about a bull movement which will prove more of a surprise than the result of the recent election. We are all anxious to have the bull go on the warpath and stay there for a few months.

SHIPPER.

WANTS ORDERS FILLED MORE PROMPTLY.

Editor American Elevator and Grain Trade:—A communication appeared in the AMERICAN ELEVATOR AND GRAIN TRADE some time ago regarding the way Eastern orders for grain received attention—or rather, did not receive attention—at Western points. I have a fellow-feeling for the writer's sufferings at the hands of Western shippers, and I believe that many other Eastern receivers have had similar experiences.

The great trouble with buying grain in the West is the difficulty in getting cars. At this time of the year we Eastern grain men find it necessary to get grain from Western markets. And the treatment we get is very unsatisfactory. It has been my experience that it takes from twenty to twenty-six days for the cars to arrive from a distance of a thousand miles. That is a miserable way to treat legitimate buyers, and I do not believe there is any excuse for such delay in delivery.

I have not yet caught a commission man waiting for a favorable change in the price of wheat before sending my order ahead, but why twenty six days

was the first chief under the law, and Mr. Wm. H. Harper was his successor. Mr. Harper filled the office with great efficiency, serving for three months over his term of two years.

The ability to accurately judge and grade grain is possessed by few, and can be developed only by years of practical experience. This leads me to say that the inspection department should be divorced from politics. The interests at stake are too great to be imperiled by the frequent changing of inspectors as one political party or the other happens to be in possession of the state government.

Yours truly,

L. E. PHONE

A NEW FACTOR IN THE FEED GRINDING BUSINESS.

Editor American Elevator and Grain Trade:—My attention has been called to the remarkable growth of what I might call the "feed grinding interests" of the elevator men throughout the country. I think this could rightly be termed an innovation, as I do not recall any other interest in connection with the legitimate business of grain shippers which has had a more rapid growth. I do not wish to say anything of the causes which have led to this state of affairs, but suppose, as in almost all other new departures, the first cause was desire for profit, and I believe that almost universally of late the grinding of feed has paid well.

However, the particular thing to which I wish to call attention is the number of products that is being utilized to make up that mixture called feed. It was not very long ago that people showed great surprise on being informed that a certain amount of nourishment could be gotten out of the, at that time, waste product bran. But we are now called upon to believe that there are muscular tissue producing properties in oat hulls, and the latest fact along this line, that it seems we are obliged to accept with a certain amount of credence, is that there is even nourishment in corn cobs. I suppose that following out this system of evolution we shall indeed be shortly able to eat at our tables a very wholesome bread made of sawdust.

I have been aware for some time that these products, such as oat hulls, corn cobs, etc., were being utilized for feed when mixed with other products, such as wheat middlings, etc., but do not know the exact proportion in which the ingredients should be mixed. Nor have I quite made up my mind that these products contain any nourishing properties, but I am one who wishes to be always "in the push," and am willing and anxious to adopt new methods and new processes just so soon as I find them to be feasible. Just as soon as I can educate my patrons to the fact that corn cobs are wholesome and fattening I shall get in line and add a new factor to my business.

Very truly yours,

SPHINX.

MIXED.

Editor American Elevator and Grain Trade:—The grain dealer who mixes common sense with his business tactics knows of a good rule that will work at least one way. That is, a judicious mixture of grain. He doesn't want the earth, and double-back-action returns on mixed grain he hardly expects or desires. The purchaser realizes this if the seller doesn't.

Many and strange are the devices resorted to this season to successfully mix grain. And the practice seems to be growing, especially at places where a thorough grading and inspection are unattainable. Exporters at Montreal are just getting over their lively objections to the mixture of barley with No. 2 White oats, and are turning their attention to the practice of mixing No. 1 and No. 2 wheat. If this is done judiciously the shipment just comes up to the standard of No. 1 and the inspector's certificate gives no hint of the presence of the No. 2.

When a consignment of grain so mixed gets to Duluth from Manitoba it ranks under the standard No. 1. The fault is said to lie with the Canadian inspectors.

Speaking of rigorous inspecting and grading it takes the sagacious farmer to dodge rules and get in his mixed grain without detection. All the tricks on the calendar have some claim on his ingenuity. Farmers have been known to sell grain to country buyers as first grade when three-fourths of each sack was very inferior wheat. This was done with the use of a section of stovepipe when filling. It was placed in the

center of the sack. The pipe, being filled with poor stuff and good wheat put about it and at the top of the sack, is then withdrawn. I shipped ten carloads of rejected wheat to an Eastern market. Some of it was musty and altogether unfit for good flour. It was rehandled, mixed and manipulated with the result that when it came out of the elevator eight cars were of No. 2, two cars No. 4.

It took an ingenious Yankee to beat the stovepipe scheme. He had a large supply of wooden shoe pegs, the story goes, which, being pointed at both ends, resembled grains of oats. He mixed accordingly, and his oats were full weight if not all wool and a yard wide. It may safely be said that the fear of the devil never entered that man's breast.

Perhaps the seed dealer gets more blame than any other grain man. The effects of "the fraudulent schemes of seed dealers" are sometimes very funny. An Englishman once bought a large supply of wheat for seed. Unbeknown to the purchaser it was a mixture of the spring and winter varieties. He shipped it to England and doubtless the farmers who attempted to use it blessed him daily.

A farmer last summer planted cauliflower seeds quite extensively: but the farmer got mad when the cauliflowers grew up into rutabagas, and got \$60 damages. However they never get damages aga'inst the Bohemian oat swindlers.

J. B. REVERIE.

OUR BOSTON LETTER.

Editor American Elevator and Grain Trade:—Business has ruled rather dull during the past month. Prices are higher than a month ago, but no one seems to desire to buy any more than enough to get along with. Up to within a week we have had mild weather, thus keeping the consumption of stuff down, especially millfeed. With wintry weather that will keep stock indoors we look for a larger demand from the country.

Cottonseed meal has never been so low as at present, sales having been as low as \$20.50. It is reported that freights to New England points will soon advance \$1 per ton. We have to a great extent been shut out from the rest of the country by telegraphic communication since the sixth inst.

Receipts and exports for the month of October, 1894, as compared with those of the same time in the preceding year, were as follows:

RECEIPTS FOR OCTOBER.

Articles.	1894.	1893.
Cotton Seed meal, tons.....	76	113
Corn, bushels.....	431,889	1,292,562
Wheat, bushels.....	1,737,408	705,883
Oats, bushels.....	691,197	567,015
Rye, bushels.....	13,685	6,395
Mill Feed, tons.....	4,514	4,336
Oatmeal, sacks.....	1,935	1,275
Oatmeal, barrels.....	8,085	4,566
Cornmeal, barrels.....	2,205	16,438
Malt, bushels.....	112,622	84,428
Barley, bushels.....	10,720	14,842
Hops, bales.....	1,687	1,239
Peas, bushels	9,891	7,350
Buckwheat, bushels.....	162,636	165,086
Flour, barrels.....	312,269	281,139
Flour, sacks.....	1,385	3,183
Hay, cars.....	144	167
Straw, cars.....		

EXPORTS FOR OCTOBER.

Articles.	1894.	1893.
Wheat, bushels.....	623,628	365,119
Corn, bushels.....	1,140	752,539
Oats, bushels.....	12,286	1,445
Peas, bushels.....	170	.....
Barley, bushels.....	.....	.....
Buckwheat, bushels.....	2,582	7,668
Cornmeal, barrels.....	1,512	540
Oatmeal, barrels.....	3,375	1,87
Flour, sacks.....	267,787	180,420
Flour, barrels.....	34,652	30,584
Mill Feed, bags	15,400	5,200
Hay, bales.....	28,791	79,876
Straw, bales.....		

L. F. Wade, formerly chief clerk for the Wade & Reed Company, and Mr. Robert Crosbie, formerly connected with the wholesale leather business, have formed a copartnership under the firm name of Wade & Crosbie to do a grain and feed business. Mr. Wade has been in the business in this city eleven years, and was formerly in the employ of "Old Hutch" in Chicago.

Mr. Clarence Reed, formerly of Wright & Reed,

Bethel, Vt., has bought out the business of Wyman Pattee & Son of Enfield, N. H.

A. F. Lunt, representing Patten Bros. of Chicago, has been confined to his house by illness for the past two months, but is now "on deck" again.

BUNKER HILL.

MIXING WHEAT IN MANITOBA.

Editor American Elevator and Grain Trade:—The accompanying excerpt appeared in the Winnipeg, Manitoba, *Free Press* as a communication from R. F. Edgar. It contains some facts regarding mixing of wheat at Fort William that will be of interest to the readers of the AMERICAN ELEVATOR AND GRAIN TRADE.

"I was very glad indeed to notice that considerable space was taken up in the columns of your valuable paper in the discussion of the very important question of mixing of the different grades of wheat at Fort William. At the same time I was surprised that this matter had not been looked into long ago.

"Most readers of your paper who are at all interested in what we are nearly all dependent upon, I mean wheat, will remember that about two years ago the mixing of wheat was carried on to such an extent at Fort William that the very people who are being benefited by this miserable practice found that they had abused the liberties that they had obtained, so much so that a certificate of grade issued by the Dominion government inspector was no longer of any value, and cargoes were often refused both in our own Eastern market and in the old country, especially in the latter, notwithstanding the fact that the certificate of grade accompanied bills of lading.

"Matters went from bad to worse until the government had to interfere, and, I believe, notified the inspector to discontinue the practice, and Fort William elevators were declared regular elevators where all wheat would be shipped out as it was graded in.

"Many people thought that would end the matter, and I believe the government and the C. P. R. understood and believed that their instructions were being carried out, for I am sure that both were anxious to have it stopped, so that our wheat should take a front rank and position that it is entitled to, 'the best in the world.'

"But as a matter of fact this mixing business soon began, if indeed it ever was stopped, for there are a few who employ professional mixers at Fort William. No doubt all parties employed in and about the elevators will say, 'we do not allow any mixing in the elevators.'

"But what, I ask, is the difference between mixing it in the elevators and running three or four different grades into a vessel, and issuing a certificate of 'one hard' for the whole lot?

"I understand this has been going on to such an extent that the government was again asked to look into the matter, and did send a man to Fort William to investigate. On that day, I am told, they were loading out a cargo for Mr. Ogilvie, who doesn't want his wheat mixed. The investigation came to a close and a report sent to the government that he found everything satisfactory.

"Now, it is not very likely any person connected with that part of the business would be foolish enough to load a vessel with mixed wheat knowing that a government officer was there for the purpose of looking into this matter.

"Then Mr. Miall came to Winnipeg, and was so glad to find that there was no foundation for the report that things were not as they should be at Fort William. I think, if he went there and asked for the manifests for all cargoes shipped out during the last year, that it would be a revelation to him, and if he is sincere in trying to put a stop to this business, and find out the facts as they exist, I would refer him to a cargo taken out by the Roselade, 60,000 bushels with only eighteen cars of No. 1 Hard, balance No. 2 Hard, No. 3 Hard and Rejected, with a certificate of No. 1 Hard for the whole lot; also the Enterprise, I think, on the 30th August, cargo 26,000 bushels, containing eight cars, No. 2 Hard, three cars, No. 3 Hard and two cars Rejected, balance No. 1 Hard, certificate of No. 1 Hard for the lot. Also the Algonquin and the Myles, I understand, about the same proportions.

"Is it any wonder that our wheat does not command the price that it should when our old country buyers get a dose of that kind? And what a farce it is year

after year fixing standards. You might just as well, after you have struck all grades, mix up the whole lot, and call it No. 1 Hard, but I suppose the standards answer some purpose: that is, in the grading of cars as they arrive.

"Let some country shipper send down a car that is not up to the mark. There is no hesitation about knocking it down a grade or two, very likely rejected, and no doubt rightly too, but he is not an exporter, and must sell that car at a rejected price to those who are on the ground floor. He simply runs it into a vessel and gets a certificate of No. 1 Hard for what the certificate several grades below was given.

"Now, what I claim is that whatever grade a car is on one side of the elevator it should be the same on the other, no favors shown, and no mixers allowed in the elevator, and that the different grades should be graded out as they are graded in, and no inspector allowed to put several different grades into a vessel and issue a certificate of straight grade for such mixture.

"It is not fair to the reputation of our wheat, not fair to the buyer of such cargo, and very unfair to the small dealer, who is not in a position to handle vessel loads."

Very truly yours, PARISH & LINDSAY.
Brandon, Man.

DOTS AND DASHES.

From reports received it would seem that doubt exists as to the quality of the corn produced in some of the Southern states.

A new feed is being put on the market at Montreal. It is in the form of molasses. Its results are said to be excellent in fattening stock, and it costs 1 cent per pound.

It is reported that a cargo of Russian feeding barley consisting of 108,000 bushels arrived in New York November 1 and was shipped to a speculator in Milwaukee.

At a recent meeting of the California State Board of Trade resolutions were adopted urging farmers to diversify their farming, raise more stock and cultivate orchards.

It is reported at Superior and Duluth that an unusual amount of smut is appearing in this year's crop of wheat, not enough, however, to materially affect the grades.

There is considerable flaxseed arriving at Chicago that grades rejected. The larger portion comes from Iowa, where it was sown late and became either wet or frost bitten.

It is stated that about two million tons of cotton-seed go to waste in the South every year owing to the cost of transportation. No other part of the country is so handicapped with bad roads and excessive railway charges.

Barley malt aggregating 5,940 bushels, valued at \$5,388 was imported during the nine months ending with September, against 2,294 bushels, valued at \$2,780, imported during the corresponding months of the year preceding.

The "pointers" on the government crop report have not been very close since Congress adjourned, and the returns from the outlying districts indicate that the "grapevine telegraph" will have to be repaired after next March—new poles erected and new wires strung. —*Chicago Trade Bulletin*.

A disagreeable echo of the McGlaughlin May wheat deal in San Francisco is the report that weevil have infested 25,000 tons of grain at Port Costa warehouses and that five of the largest grain warehouses in the state may be condemned by the Produce Exchange if the grain is not speedily removed.

Everyone who has had to carry well-filled bags of grain knows how hard it is to grip one end while someone else carries the other. Broken finger nails, sore fingers, and frequent droppings of the sack generally attend the operation. A *Rural New Yorker* correspondent tells how he avoids the unpleasantness, and though it is not new it may prove useful to some of our readers. In picking up the lower end of any heavy sack, with the middle fingers simply press the corners back in. This will give a hand-hold easier and more comfortable than any other way.

Queries and Replies.

Questions and answers are inserted under this head free of charge, and all are invited to avail themselves of this column

No. 6. Purpose of Difference in Time of Shipment.—I should like to have some reader of the AMERICAN ELEVATOR AND GRAIN TRADE explain to me the following: A Toledo firm in its circular letter makes a distinction in its quotation of prices on corn, oats and wheat, as to time of shipment. The corn bids are for prompt shipment, oat bids are for ten days' shipment, and wheat and rye bids are for twenty days' shipment. Why this difference?—IGNORAMUS.

EXPERIENCE WITH AMERICAN ELEVATORS IN RUSSIA.

NO. II.

BY ALFRED F. BENDER, ENGINEER, ST. PETERSBURG.

Admitting the storage capacity of the elevator at St. Petersburg to be equal to 1,700,000 poods, and presuming that each and every pood should be kept at least a month (instead of the six weeks desired by the trade), which for a seaside elevator would be rather too long a storage, we find that during six months no less than six business cycles would be necessary. That is, the elevator would have no less 10,000,000 poods of grain run through it.

In 1890 there was but one-seventh, in 1891 about one-fifth and in 1892 one-twenty-second of the above amount of business done. It should be noted that the elevator is intended for still quicker work, and that it keeps the grain for only five hours free of charge, instead of 10 days, as is usual in American elevators. During the season of navigation there is no reduction of the storage fees; on the contrary, it increases, and is levied for 10-day periods. It is obvious that for want of other receipts besides the storage fees the elevator is compelled to not merely admit of no reduction of charges for long storage, but, on the contrary, to make the fees still heavier in order to push improvements, such as the clearing of the house and establishing facilities for any new-comers who might be in need of the services of the elevator machinery.

When there is no navigation (in autumn, winter and early spring) a fee of 0.33 copecs per pood (about 0.17 of a cent per 36 pounds) per month or part thereof is charged, the same rates as during the season of navigation. In case of the grain having been stored previous to the season of navigation and kept for over 22 days after the opening of navigation, the navigation time fee is paid; that is, the heavier one. This shows that the elevator was not intended for storage purposes, and that keeping grain there is too expensive. In case of long storage being required, leasing a storage house for a long period would answer the purpose and be cheaper.

In connection with the subject of elevator charges, it should be mentioned that for all other services in handling grain the elevator charges 1.1 copecs per pood, or 1.10 rubles per 100 poods, or 6 rubles 71 copecs per carload of 600 poods, about \$3.35 for 2,200, or \$1.50 per 1,000 pounds. Add to this the storage fee and it will be found that the rate of charges are almost as high as those of American elevators. But owing to differences of climate the elevator at St. Petersburg, even if running at full speed and without interruption throughout the whole season of navigation, would have to charge twice as much to become as profitable as are the American elevators.

Owing to the small amount of business being done the charges will have to be increased to still more than they are at present. But if that is done it will make the services of the elevator quite inaccessible to grain shippers, at whose disposal there is at St. Petersburg plenty of cheap labor able to render all those elevator services at lower prices. While the receipts of the elevator keep pace with the amount of business done, the outlays and expenses of the management are far in excess of the income. Mr. W. I. Tchobotoff, the manager, states that during the past

years of its existence the elevator did business at a considerable loss, which must have reached 30,000 rubles in 1890, 16,000 rubles in 1891, and \$1,000 rubles in 1892, a total loss of not less than 125,000 rubles (\$75,000) in three years.

Admitting the constructive cost of the elevator to have been 550,000 rubles, and counting the usual 5 per cent. per annum interest thereon, which would make 27,500 rubles the first year (1890) 40,000 rubles the second (owing to an increase in the value of the elevator of 80,000 rubles), and 47,500 rubles the third (the value of the elevator being at that time 950,000 rubles), we have a total interest equal to 115,000 rubles, added to the total loss for three years.

There is also the depreciation of the whole establishment and the wear and tear to be accounted for. The rate of depreciation may be determined from the record of American elevators. Wooden houses last 35 years. Presuming the house can stand even 40 years, and its definite cost being 950,000 rubles, the annual cost of wear and tear would amount to 27,500 rubles, or an approximation of 57,000 rubles in three years, which should be included in the loss. This makes an approximate loss of 272,500 rubles (\$136,250). So we arrive at the conclusion that the owners of the St. Petersburg elevator will never attempt to build another house, or even a less expensive one.

The author of a recent pamphlet on this subject requests the management of the elevator to make public the exact amounts of loss, which are being kept secret, claiming that it would facilitate the making of a more exact account than by applying approximate data.

Another feature of the St. Petersburg elevator, as shown by statistics, is that, notwithstanding the elevator was intended exclusively for handling export grain, there is almost no grain undergoing any cleaning operation, owing to the fact that neither cleaning nor finishing is obligatory. In the three years of 1890-92 the elevator has cleaned only 11,022 poods of wheat out of 870,191 poods shipped, 77,835 poods of rye out of 577,509 poods shipped, 23,462 poods of oats out of 2,471,610 poods shipped, 611 poods of barley out of 16,290 poods shipped, and not a single pood of flaxseed. So the partisans of the regulating system, who thought it necessary to erect elevators to have all our export grain cleaned must confine themselves to talking about obligatory grading.

The services of the elevator were applied for by only twenty parties in the three years. The majority of the exporters do not care for the elevator, some preferring to store grain in vessels of their own and others having a crowd of workmen who have been engaged in that business for more than 20 years, and still others finding the elevator charges to be too heavy. These of course would never apply to the elevator in case there was any further increase of the storage fee.

Such is the status of the first Russian seaside elevator, which was intended for the exclusive purpose of handling export grain, and which can run but six months in the year, when navigation is open. The other six months of the year are, and ever will be, lost in comparative idleness, and a complete cessation of business as soon and as long as our Russian Hudson is covered with ice. The amount of work done by American elevators in twelve months must be done here in six months. Therefore, to equal the amount of work done by London and New York elevators our elevator must run at double speed or the grain kept for a still shorter length of time than is usual in London or New York elevators. And to make our elevator a profitable business twice as much grain would be required as at London or New York.

The elevator at St. Petersburg is only half as favorably situated as most American elevators, and the conditions of the grain trade are not favorable to our elevator. St. Petersburg does not play an important part in the grain export trade, and ships yearly but about 30,000,000 poods of various kinds of grain, nearly one-fifteenth of the whole amount of grain exported annually and one-ninetieth of our yearly crops. The local trade is confined to dealing mainly in grain intended for local use. So long as there are southern ports in Russia like Odessa and Novorossisk at the Black Sea, where the abundant crops of Southern Russia find a natural outlet, the port at St. Petersburg is not likely to take a prominent place in our export

trade and cannot maintain elevators, especially expensive ones.

For this reason alone the failure of this city's first elevator could have been foreseen, though at present it is due to the supply of cheap labor as well. The fact that many grain dealers feel disinclined to dissolve their workmen companies for the sake of the elevator bears evidence to the losses of the elevators being due to the defeat of the latter in the battle with labor, which is struggling for life and can do the work at a considerably less price. And labor does not require repair, there is no capital invested and no depreciation.

Another elevator now running is that started at Odessa by the Southwestern Railroad Company in 1890. One of its buildings was destroyed by fire August 11. The other started in business Aug. 24, 1890. It is nearly as large a house as the elevator at St. Petersburg, and consists of two buildings having together 480 bins of 1,600,000 poods aggregate storage capacity. The total cost of this elevator was 1,000,000 rubles (\$500,000). Although it can receive from 120 to 200 and 250 cars of grain in a 10 to 12-hour run, yet its work is not satisfactory, as may be seen by the accompanying statistics:

The total receipts during 1892 were 740,633 bushels, against 939,337 bushels in 1891, and 490,093 bushels in 1890. Shipments in 1892 were 446,785 bushels, against 774,268 bushels in 1891, and 232,415 bushels in 1890.

Out of the whole amount of grain stored during 1892 wheat made 70 per cent. (mainly winter wheat of the better qualities), corn 10 per cent., barley 13 per cent., the balance 7 per cent. The maximum amount of grain stored at the elevator in 1892 varied from 100 to 400 thousand poods, one sixteenth to one-fourth of the storage capacity. The elevator at Odessa being able to make ten business cycles in a year, it was and could be expected to ship up to 14,000,000 poods of grain; but owing to business conditions it shipped in 1891 only one-twenty-first and in 1892 one-thirty-sixth of the amount which it had been adapted for, and which was necessary to make the establishment a profitable property. Having begun business in but one building on August 24, the elevator received in the fall more grain than it could ship. There was the same tendency toward long storage as at St. Petersburg.

There was a net profit of 1,450 rubles 96 copecs (\$725.48) for the first incomplete year; but in 1891 there was a loss of 11,359 rubles 37 copecs, and in 1892 a still greater loss of 17,377 rubles 10 copecs, the total losses for three years being 30,499 rubles 21 copecs. Adding the interest for three years (without considering the time the elevator was under construction) which would amount to 150,000 rubles and 65,000 rubles for depreciation of the whole establishment, we would find the total amount of losses for three years to have been no less than 240,000 rubles (\$122,500).

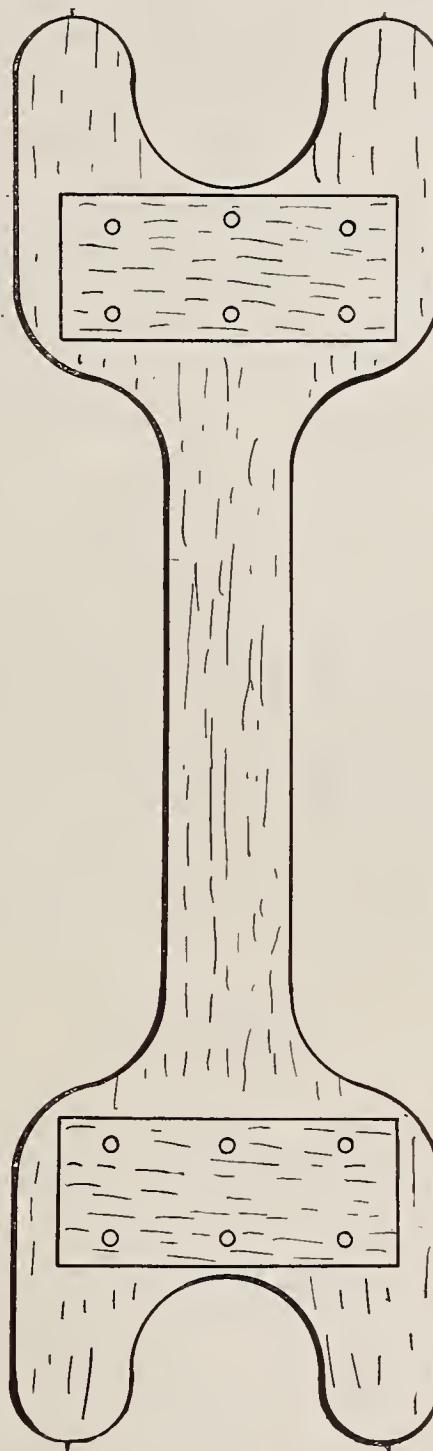
The bulk of the grain arriving at Odessa by the Southwestern railroad did not enter the elevator, but was stored in the private houses leased by the railroad company. It was kept in bags at a low fee, varying in accordance with local conditions, while the storage fees of the elevator could not be reduced without the authorization of the secretary of finances and the consent of the secretary of roads and ways of communication and state controller. Last year the railroad company gave up leasing storage houses and has confined itself to keeping a small one in order to induce shippers to apply to the elevator. The railroad company spares no efforts to attract grain to the elevator. Besides other courtesies it advances money on the following terms: 60 per cent. of value up to six months date at 6 per cent. per year interest, on 80 per cent. of grain value (for not longer than six weeks) at 6 per cent. per year interest.

No grading is being done, at least up to quite recently, at the elevator at Odessa, the grain owners protesting against the grain losing its identity. Each shipment is kept separately without being mixed with others, and until recently there were no standard grades or fixed qualities. In 1893, however, there was an effort made by the elevator officials to establish a grading system. Quite a number of standard grades were created in order to introduce grading and to have the half-empty bins filled. The bins are very large and spacious, and therefore are not adapted to the demands of the local grain trade, for it is deemed more desirable to transact business on the basis of the *nature* (weight of a tchelvert of grain in poods) of grain. The

weight of a tchelvert is determined by weighing a certain small quantity of grain by means of the powcka scale and multiplying it by a certain number. The elevator afforded no such accommodation, and many difficulties and misunderstandings arose.

To alter the prevailing customs of the grain trade by means of elevators, even if feasible, would be hardly possible for the local elevator, which is comparatively too small and in no proportion to the enormous amount of export grain accumulating at Odessa and shipped out of that port. On the other hand, owing to the elevator being built very far from the water's edge, the grain arriving at Odessa by waterway cannot be directly transferred to the elevator, and is therefore subject to various additional charges, such as loading and freight on the railway lines, etc. This makes the burden of expense still heavier.

By the substitution of steam for labor the elevator



A CONVENIENT SPOUT SUPPORTER.

has not merely not gained, but has suffered a loss compared with other storage houses. Grain dealers offer but little grain to the elevator, and crop growers none. If the farmer is in need of ready money for immediate investment or outlay for farming purposes, they readily sell their crops to grain buyers or his agents on the spot, without waiting until harvest. And further, as wages at Odessa are nearly as low as at St. Petersburg, the competition of labor bears on the elevator quite as heavily. And no wonder the latter repeats in almost every particular detail the general history of an American elevator in Russia—with the best of prospects at the beginning and a dreadful and heavy disappointment at the end.

[TO BE CONTINUED.]

It is reported that great difficulty is experienced in obtaining choice samples of barley in the local market at San Francisco.

A CONVENIENT SPOUT SUPPORTER.

BY DUMAX.

The illustration furnished herewith represents a very handy and easily made device which will repay many times the small cost and trouble spent in its making. It is often found necessary in the elevator which has no conveyors to transfer grain from one bin to the boot of a distant elevator so that it may be carried to the top of the elevator and thence spouted to any bin in that part of the house.

The grain is transferred from the bin to the elevator boot by means of a spout or trough, and this device is designed to act as a support to this spout. It can be made of almost any kind of wood, and should be made the same shape as represented in the cut. This will give it the greatest amount of strength with least amount of material. It will take up little room and can be easily handled. The ends of the support should be strengthened with a cleat, which is fastened on one side only, and should be about as long as the upright is wide.

In the end of each of the four legs of the support should be a sharp spike to prevent the support or the spout from slipping. The support will last a lifetime, and from the fact that it has a definite service to perform will not be liable to be mislaid or cast aside as worthless, as is generally the case with any prop that may be at hand, and which is generally found to be unreliable. These supports can be made any length desired.

SCREENINGS.

Ex-pressed—A broken bale of hay.

The farmer's reliance is to store wheat in his animals.

The idea of a pneumatic grain elevator system is not a new one. Whole crops have been moved by air in Kansas.

Last spring the farmers reported that their wheat was going to the dogs, and now they say it is going to the hogs.

If wire pulling is a prerequisite qualification of the successful politician, the hay baler ought to take position in the first rank.

Country Barn Builder (to assistant)—"Barnes, I want you to do something for me." Assistant—"What is it?" C. B. B.—"You see this elevator is almost finished except shingling the roof? Well, I want you to look around and see if you can't find a thin carpenter who does not weigh over 90 pounds. Someone has to finish that there roof."

"By the way some folks talk," said Farmer Cottosel, discontentedly, "ye'd think that the life of a farmer was nothin' but loafin'."

"It is certainly an independent existence."

"Yes; but it has its drawbacks. An' tain't ez free from excitement an' danger ez some folks say 'tis."

"Have you been having an adventure?"

"I hev that same, an' a mighty clus shave it was."

"How did it happen?"

"I driv a load of hay under a trolley wire."—Washington Star.

Progressive Farmer—I concede that the bicycle possesses many advantages over the horse. It saves feed, toil, care, shoeing and a lot more things, and was a good deal speedier.

Dealer—Wby, then, don't you get a bicycle?

Progressive Farmer—Well, there's only one thing that prevents me. When a man comes to town on Saturday and starts home in the evening just corned up enough not to know the way, his horse will take him back to his family in fairly good shape, but the bicycle ain't made that can do it, and I'm a man that goes to town on Saturdays.

A correspondent in New York writes that barley from the Northwestern states is much finer and cleaner than in any former season, and is liked by brewers equally as well as Canadian, both as regards color and sprouting quality. But Canadian barley is still in demand, though not to the extent expected.



PUBLISHED ON THE FIFTEENTH OF EACH MONTH BY

MITCHELL BROS. COMPANY
(INCORPORATED.)

OFFICE:

Howland Block, 184 and 186 Dearborn St.,
CHICAGO, ILL.

Subscription Price, - - - - \$1.00 per Year.
English and Foreign Subscription, - - - 1.50 "

English and Foreign Subscriptions may be sent to W. H. Smith & Son, 186 Strand, London, W. C., Eng.

A. J. MITCHELL, - - - Business Manager.
HARLEY B. MITCHELL, - - - Editor.
CHARLES S. CLARK, - Assistant Editor.

ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

CHICAGO, ILL., NOVEMBER 15, 1894.

THE CHICAGO ELEVATOR FIGHT.

The peace that was patched up between the Chicago elevator men and the grain receivers was not considered by either party a final settlement of the question. The reduction in charges by the elevator men and the agreement to buy only at competing points left the real matter of controversy practically untouched. The substantial trouble was and is that the elevator men keep their houses full to earn charges, and are thus the virtual controllers of the grain trade. An indefinite agreement as to competing points and a reduction of charges could not settle the questions at issue and has not done so. In fact, nobody expected it would. The truce was declared simply because it was seen that more than one campaign was necessary.

The next campaign on the elevators was started by the movement to build steel storage tanks, and one or more companies have already been incorporated to do this work. This is in the line of providing competition for the present elevators on a basis that will make it possible to discipline the elevator owners if they decline to obey the regulations of the board, without depriving the board of regular storage. Of course this line of action will take time to develop. The board must see competitive storage plants in actual existence before it relies on them.

And meanwhile rumors are rife as to another movement to be made against the elevator men, attacking them through legislation. The movement, it is said, contemplates legislation as to the rates charged for storage, either by statute, fixing the charges, or by placing the matter wholly under the control of the Railway and Warehouse Commission, with power to fix rates as they do with the railroads. It is believed that legislation of this kind would be easy to

procure from the Illinois solons, who have always been disposed toward lodging pretty large powers with the commission. Such a movement would doubtless receive the support of the grain dealers and farmers of the state.

But we fail to see how fixing the charges or reducing them would do away the causes of complaint. The elevator men would have greater incentive than ever to keep their houses full, and this would keep the same complaints alive. The only effectual remedy would be to prohibit the owners or lessees of public elevators from entering into the grain business at all. Human nature is a constant quality; and so long as the owners of public elevators are in the grain trade at all, there will be the same grounds of complaint that now exist. The Chicago elevator men are not phenomenally bad nor unusually "hoggish," as some allege; they simply develop the common human characteristic of working a good thing for all there is in it.

MONEY IN FEED GRINDING.

The demand for feed continues so active that all kinds of stuff is being ground up and mixed with low grade and even baker's flour and sold to feeders. One country elevator man is making a specialty of grinding corn cobs and selling the product to millers to mix with bran and poor flour. Another elevator man has added a plant to grind the offal of his oat clippers with corn and oats for feed.

For some time there has been more money in grinding feed than in making flour, and the millers naturally have been turning a larger percentage of the wheat berry into the feed pile. Many elevator men have also discovered the great profit in feed and added a feed grinding plant to take advantage of it. None that put in a good plant have failed to make money by it. Elevator men can grind up screenings and low grade grain and get a good price for the feed.

There has been a greater profit in feed during the last few months than for several years, and it seems likely that feed will continue to be a prolific source of profit to grinders until the next crop is harvested. In the spring green grass may reduce the trade, but the grinders will continue to get good returns from their investment.

CALL A HALT.

This journal has always been a devoted friend of the waterways, and its utterances, we believe, will be found consistent with its professions. But no true friend of the waterways can help being alarmed at the present craze to dig canals, some of which will be quite as useless to our people as the canals on Mars. No better method could be devised to discredit our present canals and make them beg in vain for legislative favor than to carry out some of the many idiotic plans now urged upon the people. It must be remembered that the canals we now have are the victims of neglect, and that some of them have already fallen into hostile hands. Why not endeavor to secure what we have rather than tap the public till for new projects whose value is problematical, but whose cost is sure to prove colossal?

We have taken occasion more than once to enumerate some of the "triumphs of engineering" in which it is proposed to sink the people's money. Most of them have absolutely nothing to recommend them to anybody except politicians and contractors. Some of them would cost more than the Suez or Panama canals. Their cost, however, does not alarm their promoters, for it is the handling of the funds that chiefly concerns them. An ocean of eloquence and argument is expended on some scheme that only a genius for engineering and spoils could discover.

Meanwhile the actual waterways of the country suffer from neglect and beg for necessary

money often in vain. The vast commerce of the great lakes competes for Congressional favor with tuppenny harbors of the Atlantic coast and with unknown rivers in the backwoods. Let us stop this foolishness of booming canals on paper and demand decent support from state and nation for the waterways and harbors of whose value there is no question.

GRAIN LONGEST IN STORE MUST BE GIVEN OUT FIRST.

When the new wheat crop commenced to move the regular storage elevators of Chicago contained about 18,000,000 bushels of old wheat, but at present some of them contain very little if any old wheat. They took in new wheat and gave out the old, probably in cancellation of the very certificates issued upon the new wheat. We have heard of complaints against this practice and others have probably felt sorely aggrieved by what they considered an imposition.

The public warehousemen of Illinois have no power to do otherwise; the state law provides that "in order that no injustice may result to the holder of grain in any public warehouses it shall be deemed the duty of such warehouseman to dispose of, by delivery or shipping, in the ordinary and legal manner of so delivering, that grain of any particular grade which was first received by them, or which has been the longest time in store in his warehouse."

This is explicit and to the point. The public elevator men have no alternative, but must give out first the grain longest in store of the grade called for in the certificate canceled. That many of them are glad it is so cannot be doubted, for the repeated charges that weevil were in the old wheat has caused uneasiness in the trade and given the elevator men some trouble.

AMERICAN CORN IN GERMANY.

It is only a few weeks ago that reports were current of the gradual decrease of the prejudice abroad, especially in Germany, against the use of corn for food. While these reports were not especially rosy, they hardly prepared the way for the announcement now made that the Agricultural Department has given notice to its agents, John Mattes and "Corn Bread" Murphy, to close up their affairs on January 1. This order, it seems, has been given by Secretary Morton, after a personal investigation on the ground of the results of the missionary work done by the agents; and the hint is very broadly given that no further efforts will be made in this direction.

The missionary work has been done along three lines. Mr. Murphy has endeavored to introduce corn as human food, while Mr. Mattes was sent over to Germany with the especial purpose of showing the advantages of corn for the use of brewers. As food for animals, the third line of missionary work, satisfactory progress has evidently been made; but the use of corn for this purpose is conditioned on the home forage crops and the price of corn. Of course, the present year is a very poor time to endeavor to increase the consumption of corn, with its price so phenomenally large as compared with wheat. The all-powerful argument of price is against the innovator this year.

Prejudice, patriotism and the power of indurated habit are the elements which have defeated American corn. The brewers are prejudiced in favor of small grains for brewing; and the only net result, apparently, of Mr. Mattes' labors (and they were intelligent and well-directed) was that some of the brewers are now using wheat instead of barley; but as for corn, they will use none of it for beer-making.

Nor must it be forgotten that the German is intensely patriotic. The argument for the use

of an imported instead of a native article must be a persuasive one, indeed, to induce him to discard the latter for the former. Of course, the price argument is an all-powerful one; but 1894 is a bad time to enforce it.

But the force of habit has been the grand obstacle in the way of introducing corn as human food in Germany. The Germans eat bread cold. They regard warm bread as unhealthy, and are not accustomed to the idea of making bread for a single meal as is necessary with corn. Cold cornbread is not palatable, even to American taste, and the Germans will not eat it warm. And so, notwithstanding every argument that could be brought to bear in favor of corn as food, and the number is legion, long-continued national habit comes off victorious. And more's the pity, as both Germany and America would profit by the increased use of corn as food.

FARMER HATCH WILL FARM.

One of the surprises of the recent election, and a glad surprise to many, was the retirement of Farmer Hatch of Missouri. For at least two years from next March he will cease to farm the farmer; and it is to be hoped his retirement will be permanent until he can find some better platform to stand on than his persistent demagogic and alleged anxiety for the interests of the agriculturist. The legislative measures which he proposed for the betterment of the farmer's lot would cause Jefferson to turn in his grave. His highest view of his duty to the farming community was to shackle commerce, believing that somehow the farmer would profit by the withdrawal of that capital which makes a cash market for the farmer's products. Had he succeeded, his bill would have earned for him the lasting odium of the very people he was so anxious to serve. He may thank his lucky fate that his pernicious activity is cut short, for there is little likelihood that his bill will be enacted into law at the coming short session of Congress. And we trust that he may employ the vacation so thoughtfully provided for him by his constituents, in cultivating his farm and a speaking acquaintance with modern business.

WORK OF THE ILLINOIS GRAIN DEALERS' ASSOCIATION.

The Illinois Grain Dealers' Association recently held a very successful and well attended meeting, a full account of which appears elsewhere in this number. This association has always worked persistently in the interests of the country grain dealers, and has materially advanced their interests, not only by its good work, but also by its influence; imposters, schemers and tricksters in the grain trade will not knowingly attempt to prey upon a member of an organization. They know it will arouse a hundred or more dealers to the defense, so they pick out the weak and unorganized, and abuse them for profit without fear of much opposition.

The Illinois Association is an old organization, and is at least always trying to do something to relieve the trade. It has declared against the shortages at Chicago, and wants public weighmen appointed for all the regular houses in Chicago. This should bring the blush of shame to the members of the Chicago Receivers' and Shippers' Association, who reorganized about a year ago and made many brash promises of reforms they would secure.

The mutual insurance of grain elevators was discussed, but as yet no committee has been appointed to investigate the feasibility of starting a mutual fire insurance company for the insuring of first-class, well protected elevators only. The Nebraska elevator men started an elevator mutual a few years ago, and we believe its failure was due to the fact that it insured any elevator offered. If the company were made up

of all kinds of elevators and the market declined while the houses of members were full, the moral hazard would become very large, unless the elevators were insured for much less than their real value.

The association has decided to try to get relief from the inequitable provisions of the Landlord and Tenant Law, owing to which grain buyers are sometimes required to pay for grain twice before they can get legal title. The law provides as follows:

Every landlord shall have a lien upon the crops grown or growing upon the demised premises for the rent thereof, whether the same is payable wholly or in part in money or specific articles of property or products of the premises, or labor, and also for the faithful performance of the terms of the lease. Such lien shall continue for the period of six months after the expiration of the term for which the premises were demised.

If the tenant has not paid his rent he has no right, in the absence of a specific contract giving him such a right, to sell the products of his farm, and he who pays the tenant for the grain may have to pay the landlord also. It is decidedly unjust to regular dealers who buy in the open market, and should be amended with a proviso that regular dealers shall not be liable unless notified by the landlord. It would give relief not only to the regular dealer, but also to the landlord, to make it a criminal offense for a tenant to sell grain or stock to which he did not have clear title.

The association merits the hearty support of every dealer in the state in its fight for a fair law governing this subject.

"DISCRETIONARY POOLS."

The speculative instinct in mankind occasionally assumes the characteristics of a mania. The "Mississippi Bubble" and the South Sea craze are historic instances. But we are not obliged to go back into history to find instances where speculation has become an epidemic. Every state in the West can point to its "boom towns" in a state of collapse. Real estate speculation is too slow for the man with a well-developed fever; and the genuine mania occurs only in dealings where "quick action" is possible. A bucket shop sometimes sets a town on fire, and the conflagration lasts as long as the people have "money to burn." Large cities get the mania. Montreal has had the disease in aggravated form in the past, and the same is true of Chicago.

But Pittsburg has been the most recent and notable sufferer. Blind pools, euphemistically called "discretionary pools," have flourished there. The very term ought to brand them as swindles; but they have succeeded in getting thousands of people to put their money into the hands of the pool managers, lured by the hope of extravagant dividends. One of these concerns at Pittsburg had 4,000 "investors," with from one to two million dollars intrusted to it. The dupes were workingmen, servant girls, farmers and people generally who know nothing of legitimate speculation.

These concerns flourished for awhile like "Fund W" at Chicago. What the end would have been, if left alone, anyone can conjecture. But the Chamber of Commerce and the police took a hand in the matter and hastened matters. Some of the pool managers were arrested and others disappeared. The bubble burst and it is estimated that 50,000 fools have parted with three or four millions of money. The books of one of the concerns showed that it did speculate heavily; but its dividends were not paid from profits. Most of the money paid into the concerns was doubtless salted away, barring what was paid in dividends to some as bait.

It would be easy to moralize on such a state of affairs; but the moralizing should be deferred until the culprits are behind the bars, so that the story would prove a warning to rascals as well as fools.

WHEAT FEEDING.

The literature of wheat feeding continues to expand. Every agricultural journal teems with the recorded experience, and experiments of farmers in pursuit of some more profitable method of disposing of wheat than selling it at the prices which have prevailed for so many months. The agricultural departments of several states have taken up the matter and issued bulletins on the subject. The quarterly report of the Kansas State Board of Agriculture is wholly taken up with matter relating to the feeding of wheat to farm animals, and is the best compilation of facts and opinions on the subject we have yet seen. The report makes a pamphlet of 200 pages, in which the wheat feeding question is handled in all its aspects.

The conclusions reached favor the feeding of wheat not only to hogs, but to farm animals and to poultry. Its recommendations as to the manner of feeding wheat are to the point, advising that it should be ground in most cases to secure the best results. The general recommendation of the report is that with wheat and corn approximating in price, it is economical to feed the wheat, as it is superior to corn when properly fed, or at least its equal. Of course, with corn cheaper than it is now, it might be advisable to sell the wheat and buy corn.

Naturally we are concerned with this wheat feeding question in its market aspect rather than in its relation to the economy of the farm. It is certain that an immense amount of wheat has already been fed, and that wheat will be increasingly used for feeding purposes until its price advances. The experience of the last year marks the entrance of a new factor in the market—a regulating factor, as it were; for we cannot doubt that farmers will continue to raise wheat and that they will feed it if they find it the best thing to do. So much has already been fed that millers in some localities find it difficult to obtain wheat for milling purposes, even by advancing the price. Perhaps the feeding will be overdone before either farmers or millers discover it; for it must be remembered that it is only necessary to replace 5 or 10 per cent. of an ordinary corn crop with wheat to make an awful hole in the wheat crop.

THE ERIE WILL BE IMPROVED.

Western grain shippers will be glad to learn that the amendment to the New York constitution which provides for the improvement of the Erie Canal was carried by a majority of over 50,000 votes, so the friends of the canal can rest assured that the next legislature will provide ample funds for the deepening of the channel to ten feet and the lengthening of the locks of the canal.

This will enable much larger boats to navigate the canal. All boats can then load to full capacity and run much faster, as they will run through water, not mud. The steamers can take more tows and grain will be transported from Buffalo to New York promptly and at rates that will attract all the grain carrying trade.

The demand for more storage room in Chicago has prompted local dealers to indulge in considerable speculation as to the possibility of building a house so cheap that the returns from the first year's storage would pay for the house. They have not taken into consideration the operating expenses or the great risk of the cheap house falling in a heap. The British and Russians seem determined to get as substantial elevators as can be built, while the Americans go to the other extreme and demand the cheapest house that can be built. The fall of one or two of these cheap houses may open the eyes of the American elevator men to the fact that a good house is always the best investment and the most satisfactory.

EDITORIAL MENTION

COOPER well your cars and mark the weight on card tacked to each door.

IT is a wonder to many country grain shippers why some of the terminal elevator men do not immediately construct "steel" elevators for handling their grain.

THE irregular buyer is not having such a pleasant time this season, and he longs for the day when farmers marketed their crops with a rush as soon as harvested.

A GRAIN Trade Congress will be held at New Orleans November 21, and it is expected that representatives from all the Western states and territories will be present.

THE season when track scales revel in unreliability is now at hand, and aided by wind, rain, hail, snow and ice, they make life a burden to the country grain dealer who attempts to ship to a terminal market.

IF your shipment is reported short, do not hesitate to kick to carrier, receiver and everyone else who had anything to do with it. The more complaints made of shortages the more pains will handlers take to prevent them.

GRAIN is weighed by the hundred pounds, shipped by the hundred pounds and should be bought and sold by the hundred pounds. It would save much labor, prevent many errors and greatly simplify the grain business.

ERIE, like Ogdensburg, has elevator storage capacity of over 1,000,000 bushels, yet neither city is included by the commercial exchanges in the visible supply reports. Do the compilers fear to destroy the reports' comparative value, or what possible excuse can they give for this omission?

A CHARGE for delay which is not levied equally against all offending parties to the transaction is unfair and should not be tolerated. At present only the weak patrons of rail carriers are made to pay demurrage. The large shippers and receivers and the carriers are never worried by a demurrage claim.

THERE is one elevator man in Iowa who is a shrewd advertiser. Being discontented with his own party, and feeling certain that the Populists could elect no one, he joined the farmers' party and succeeded in securing the nomination for an office. The farmers of the county all supported him and hereafter will patronize his elevator. He scored a good point and his competitors are very much put out about it.

THE Chicago Board of Trade has amended its rules so as to prevent "bucket shopping" by commission houses. The vote was 312 to 310. If the rule is lived up to, every deal must be made on the board instead of being merely entered on the books of the commission firm. Of course, under the plan so often pursued at present, a commission house can offset the purchasing orders of customers by an equal amount of selling orders from other customers, without a single transaction on the board, until buying or selling orders predominate, and pocket the com-

missions. This is bucket-shopping pure and simple. The new rule will possibly be evaded and is not altogether satisfactory so far as making settlements is concerned; but if lived up to the market can hardly help feeling the effects more readily of buying and selling.

THE new elevator which Metcalf-Macdonald Co. are building at South Chicago for the Calumet Elevator Company has elicited a great deal of praise. Mr. M. F. Seeley, the veteran elevator builder, tells us that it is the finest elevator he ever saw. This is praise, indeed, from one so well calculated to judge.

IT seems that the story about Russian barley being shipped to Milwaukee was not a "fake." The barley arrived in New York November 1. The cargo consisted of over 100,000 bushels. It was low grade feeding barley. But it seems that matters have been evened up by the shipment of 25,000 bushels of barley from Milwaukee to Antwerp.

ELEVATOR men who have their houses insured should not add power plants or make alterations in their houses without a permit from the insurance company or companies. It changes the nature of the risk, and often sufficiently to release the insurance companies from liability in cases where they did not agree to permit the changes. A little precaution in this matter may save the amount of your insurance policy.

DO NOT let country barn builders erect your elevator. They know nothing of the strains to which it will be subjected, and have not made a study of economy in material, space, power and time in building. The house that falls, or is constantly getting out of repair, and that other class of barn-builder products, the inconvenient elevator which it costs so much to operate, are worthless to any progressive elevator man who wishes to get a profit out of the business.

THE governor of Mississippi has addressed a letter to the governors of the cotton and grain growing states asking them to appoint two delegates from each congressional district and five from the state at large to the anti-option convention to be held at Vicksburg on the 20th. The governors, senators and congressmen from the several states are also extended a cordial invitation to be present, but it is not likely any will attend. The fate of Anti-Option Hatch strikes terror to their hearts.

THE harvester people are taking a hand in the wheat feeding question. The McCormick and Deering people have sent circulars all through the spring wheat region advising the feeding of wheat to hogs. Of course their motive is not philanthropic. They evidently feel some concern in the results to their business should wheat continue to sell so low as it has for the past year. Very naturally they want to see the farmer get more for his wheat. These circulars serve as a pointer in this wheat feeding question. It is the question affecting future values of wheat.

GRAIN dealers, business men and newspapers everywhere should be put on their guard against the National Postage Movement, a scheme originating in Chicago and worked with success in many localities. The scheme is to obtain a reduction of letter postage to one cent, by saddling the difference on other mail matter. Everyone joining the "movement" agreed to pay the amount of his estimated savings of the reduction of postage for one year, 10 per cent. down and the balance when the law was passed. It is said that state rights have been sold to canvassers. Among the "advisory board" are, or rather were,

the names of Chicago's most prominent business men, like Philip D. Armour. Now the so-called "board" is out in a card stating that they are not now and never were members of it, and that the use of their names was unauthorized. While the "movement" is not a swindle, the chances are very large that so profitable a scheme would not be allowed to come to an end by obtaining the passage of a law. And there is no crying demand for one-cent letter postage at the present time.

THE members of the Central Traffic Association were getting so very little grain to haul to the seaboard that they decided to advance rates Chicago to New York to 25 cents per 100 pounds; in order, of course, to secure sufficient income to warrant them in continuing the operation of their several lines. Shippers can rest assured that with wheat so cheap this rate will prove prohibitive, and the result will be that some of the carriers will make a bigger cut than ever to the large shippers. The little shippers, unorganized and helpless, will have to pay regular rates.

THE Illinois State Grange, at its recent session in Springfield, adopted resolutions favorable to Mr. Lubin's transportation scheme in part. The resolutions call upon Congress to divert a portion of the revenue derived from import duties to the payment of a portion of the expense of transportation of agricultural products to tidewater for export. Mr. Lubin must feel gratified at the stir which his plan has created in so short a time. He has managed to get his scheme indorsed or opposed by nearly all the newspapers in the country, by many of the farmers' organizations and by some political conventions.

UNTIL regular transfer elevators are established at all railway terminals, much of the through grain will lose its identity and some of its quantity by being run through a storage warehouse, and especially will this happen to grain which is permitted to go to storage, if only for a day. Track scales and elevated tracks for transferring from car to car are an abomination, and the transfer cars with their unreliable weights and feeders in charge are not to be desired. The regular transfer elevator, with its reliable weights and quick transfer of all the grain contained in a car, is the best method of transferring ever devised.

THE grain dealers of Kansas and Nebraska and other states where they are not organized have not yet started strong organizations to exterminating old abuses and impositions. It would seem that the present lull in the business would afford an excellent opportunity to wage war in behalf of reform. Dealers have the time to spare and the carriers would willingly make any concessions desired to get grain to haul. With an unusually small quantity of grain to handle and the margin also very small the dealer must take aggressive steps to protect his rights and to secure just treatment. He should not accept old, worn-out, patched or leaky cars. He is entitled to a clean bill of lading and the delivery at destination of every hundredweight of grain placed in the car; transfer car or track scale weights should never be accepted. He should have his grain delivered at destination within a reasonable time from the day he applies for cars, and demurrage should be levied against the offending party causing the delay of cars or goods whether he be a shipper, receiver or carrier. Shortages due to the pilfering of grain from cars while in transit and at terminal points, should be reduced. Equitable and stable freight, commission and insurance rates should be established. The man-with-a-scoop should be banished. The apathetic dealer who never assisted in bringing about a reform, and who would not know one if he met it on the broad

highway at noon, will say it is impossible to secure these reforms, and there they will let the matter rest. The energetic, aggressive dealer who believes a man has some right to demand just and fair treatment, even if he does buy and ship grain, will say we are right, and dealers themselves willing to fight for such a cause if enough can be secured to form a company. We would like to see the dealers of every state well organized and fighting for what they should have without the asking.

THE people around Jamestown, N. D., have been alarmed over an insect which made its first appearance last August. The bugs were seen in all stages of growth, from the red-coated young to the black-winged adults. The adult is dull black in color with small red markings, and has four wings. The young are similar to the adults, except that they are red and are wingless. With the growth of wings black markings appear. Since their first appearance they have made several visitations to different parts of the state, and finally disappeared. Prof. Waldron says the bug is closely allied to the chinch bug; and many are afraid that their appearance portends ravages next year. It is to be hoped that their disappearance is final. The country has had enough trouble for one decade.

CHAFF.

The outlook for a market for American hay in France is anything but encouraging. The French markets are glutted and there has been a drop of 20 francs in prices.

The trans-Mississippi grain congress will meet at New Orleans November 21-23. The object of this convention is to show the advantages of that port as an outlet for grain.

Double your advantage in subscribing for the AMERICAN ELEVATOR AND GRAIN TRADE by taking the *Hay Trade Journal* also. All markets reported. Both papers for a year for \$2.

San Francisco papers claim that a sea voyage of sixty days will destroy weevil in wheat. That's a waste of time—five days on the lakes will do the same thing.—*Chicago Trade Bulletin*.

Although flaxseed flows like water a syndicate with Armour at its head is getting it into a corner. The crop in America is short and prices are going up in British markets, where considerable excitement is aroused by large purchases by Americans.

Representative Hatch of anti-option fame has been defeated in the recent elections. To everyone in the grain trade will this prove a ray of light 'midst the encircling gloom of depressed business, and to all exchange members a comfort and a joy.—*Toledo Market Report*.

The elevator capacity of Erie, Pa., is about 1,000,000 bushels, and while a great deal of wheat has been shipped there of late, it is not included in the report of the visible supply. In justice to the trade all lake ports that are liable to have any wheat in store should be reported in the visible supply. Ogdensburg is also omitted.

Broomcorn valued at \$15,799 was exported during September, against an amount valued at \$14,321 exported in September preceding; and during the nine months ending with September broomcorn valued at \$105,795 was exported, against an amount valued at \$124,808 exported during the corresponding months of the year preceding.

Trunk line officials declare it will be almost impossible to maintain through grain rates until the trunk lines stop their false billing to fictitious destinations. This manipulation is increasing, and is practised by all, or nearly all, the trunk lines. It consists in billing grain to some interior point taking a higher than seaboard rate and changing the billing in transit. This gives the trunk lines from 3 to 5 cents a hundred with which to buy business, as the excess rate is deducted from the through rate before division. Central traffic lines suffer as well as Western lines from the illegal billing.

WINTER OATS.

A correspondent of the *National Stockman* writes: Winter oats is destined to supersede spring oats in my locality (Central New York) in great measure. They are sown the latter part of September. Growing wheat to sell is gradually becoming obsolete. Oats is now a profitable crop and can well take the place of wheat, as they are sown at the same time. They are great yielders, as is proven by a crop near me this season. They tiller remarkably. Given plenty of room, a single grain will sometimes produce twenty to fifty or more stalks. If soil is very fertile, half a bushel of seed to the acre is enough; but if only moderately fertile, three pecks is the rule. They are full legal weight; but do not look quite so nice as white oats, because naturally the husk of the grain has a yellow tinge, and the straw is yellower than that of spring oats. Oats is a crop that seems to do better by frequent change of seed than any other grain. Planting oats in the fall, at a time when other work on the farm is not likely to press, relieves so much of early spring work when time is more valuable. Another gain is, they do best to be fed off late in fall.

HAY IMPORTS EXCEED EXPORTS.

According to the last report of the Bureau of Statistics hay, aggregating 21,538 tons, valued at \$164,512, was imported during September, against 4,185 tons, valued at \$38,336, in September, 1893; and during the nine months ending with September 97,627 tons, valued at \$807,668, were imported, against 78,233 tons, valued at \$725,942, imported during the corresponding months of 1893.

Of imported hay we exported none in September, against 9 tons in September, 1893; and during the nine months ending with September 64 tons were exported, against 120 tons, valued at \$1,125, exported during the corresponding months of 1893.

We exported 4,229 tons of domestic hay, valued at \$65,486, during September, against 2,916 tons, valued at \$45,507, in September, 1893; and during the nine months ending with September 41,317 tons, valued at \$668,267, were exported, against 29,902 tons, valued at \$478,349, exported during the corresponding months of 1893.

INVENTOR OF THE WINNOWING MILL.

"Fifty-three years ago I invented the winnowing mill now in common use," says Moses Gilman of South Sangerville, Maine. "If I had had it patented I might have realized a fortune from it, as all the machines that have been built since have been upon the same principle. Even the threshing machine separators, which have superseded the old-time flail, use the winnowing mill substantially as I first made it for clearing the chaff from the grain. I have invented many other things that were valuable, but I never asked for a patent." Mr. Gilman, though 77 years old, is still at it, inventing, and says if his strength and reason hold out he is going to produce some valuable new ideas yet.

A WARNING TO FARMERS WHO SHIP GRAIN.

Recently a farmer from Western Illinois dropped into Chicago in quest of a commission firm which had obtained a carload of wool from him but failed to make any accounting for the same. The farmer found that no firm of the name given existed, the legitimate concern having closed its doors over a year ago. It is only another example of the bogus commission firm which like a dread apparition goes stalking through the land looking for suckers—and suckers they find by the hundreds.

Organize! organize! organize! and when you are preparing your by-laws let them be free of any clause that may be born of selfishness. Leave personal interest in the background and work to upbuild the trade, and you will still be the gainer.

Trade Notes.

Never put off till to-morrow
What can best be done to-day;
Don't assert in tones of sorrow
Advertising does not pay.
Try it now, be enterprising,
Put your ad in right away,
And you'll find that advertising
Will unquestionably pay.

The great difference between an ad and a cat is that an ad has nine lives while a cat hasn't.

The Automatic Grain Separator Company of Lockport, Ill., have certified to a dissolution of organization.

We regret to have to announce the death of Mr. L. S. Blake of the firm of L. S. & A. J. Blake, manufacturers of fanning mills, at Racine, Wis.

The Le Doux-Moore Company has been incorporated at Superior, Wis., with a capital stock of \$15,000, to do a general contracting business. F. X. Le Doux, H. W. Moore and W. P. Swift are the incorporators.

The Edw. P. Allis Co. of Milwaukee has issued a catalogue giving illustrations of its roller feed mills. The book deals with subjects of interest to elevator men, especially those who contemplate going into the feed business.

Edward E. Holister of Quincy, Ill., has invented an automatic steam regulator and grain meter. The device regulates the feed and adjusts the proportion when mixing two or more grades of grain, enabling the operator to carry a regular feed on all cleaning machinery.

H. Kurtz & Son, builders of the Incline Elevator and Dump, have moved to Mansfield, Ill., where they will have superior facilities for supplying the trade. Their Incline Elevator and Dump has met with marked favor among country elevator men, and the demand is growing rapidly.

The Otto Gas Engine Works, Incorporated, write us that the large increase in the number of orders for their engines has made it absolutely necessary to have more room for their manufacture. Work has begun on two additional brick and iron buildings of 65x175 feet each, which are to be used as machine and erecting shops.

The Link Belt Machinery Company of Chicago has issued a handsomely illustrated brochure on "Modern Methods of Handling Fuel" at locomotive coaling stations and electric light and power plants. It is a book of general interest as showing the efficiency of the company's link belt conveyors. The book contains also views of the company's works.

The Prinz & Rau Manufacturing Company of Milwaukee, Wis., has engaged M. Bowe, recently city salesman for the Willford & Northway Manufacturing Company, to represent the company throughout the Northwest, with headquarters at Minneapolis. J. H. Walsh, formerly Southwestern representative for the Cockle Separator Manufacturing Company, has been appointed general agent for the Southwest.

The Miller Fire Extinguisher, advertised in this number, is a simple, reliable and practical hand fire extinguisher of great fire subduing power. It is of light weight, easily handled and always ready for use. It can be opened and operated within five seconds by anybody and will reach a fire in the roof or ceiling that cannot be reached by throwing water out of a bucket. The extinguishers are strongly recommended by fire insurance companies and are designed especially for grain elevators, flour mills and factories. Its manufacturers also make the Miller Chemical or Water Fire Pail, which is especially designed for use in case of fire. It has the Miller self-opening and closing lid, which prevents the contents being spilled running to a fire, nor can employees use it for other purposes. The contents can be thrown from it more direct than from the ordinary pail. It is no more expensive than the common pail, and requires no labor or attention to keep it in order.

RANGE OF PRICES AT CHICAGO.

The daily range of prices for cash grain at Chicago since October 15 has been as follows:

October	NO. 2 RED W. WHT.		NO. 2 SPG. W. WHT.		NO. 2 CORN.		NO. 2 OATS.		NO. 2 RYE.		NO. 3 BARLEY		NO. 1 FLAXSEED	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.	Low.	High.
15...	51 1/2	52 1/4	54 1/8	54 1/8	36 1/8	48 5/8	49	28	28	...	...	148 1/2	148 1/2	
16...	51 1/2	51 1/2	49	49 1/2	27 1/2	28 1/2	27 1/2	...	...	148 1/2	148 1/2			
17...	51 1/2	52	49	49 1/2	27 1/2	28 1/2	28 1/2	...	...	149	149			
18...	51 1/2	52 1/2	49 1/2	49 1/2	28	28 1/2	28 1/2	...	...	148	148			
19...	51 1/2	52 1/2	49 1/2	49 1/2	28 1/2	28 1/2	28 1/2	...	...	149	149			
20...	52	53 1/4	54 1/8	56 1/8	50	50 1/4	28 1/2	28	46	46	...	149	149	
21...	52 1/2	53	50	50 1/2	28 1/2	28 1/2	28 1/2	...	...	148	148			
22...	52 1/2	53	50	50 1/2	28 1/2	28 1/2	28 1/2	...	...	147 1/2	148			
23...	52 1/2	53 1/2	54 1/8	56	49 1/2	50 1/2	28 1/2	28 1/2	...	...	147	147		
24...	52 1/2	53	50	50 1/2	28 1/2	28 1/2	28 1/2	...	...	147	147			
25...	52 1/2	52 1/2	49 1/2	50	28 1/2	28 1/2	28 1/2	...	...	144	144			
26...	52 1/2	52 1/2	49 1/2	50 1/2	28 1/2	28 1/2	28 1/2	...	...	144	144			
27...	52 1/2	52 1/2	50 1/2	50 1/2	28	28	28	...	...	144	144			
28...	52	52 1/2	51 1/2	52	28	28 1/2	28 1/2	46 1/2	47	...	...	144	144	
29...	52	52 1/2	51 1/2	52	28	28 1/2	28 1/2	46 1/2	47	...	...	144	144	
30...	52 1/2	52 1/2	53 1/2	57 1/2	53 1/2	53 1/2	24 1/2	28 1/2	47	47	...	...	144	144
31...	52 1/2	53	51 1/2	52 1/2	28 1/2	28 1/2	28 1/2	47	47	...	...	144	144	
1...	52 1/2	53 1/2	52	52 1/2	...	...	...	...	...	...	...	...	...
2...	52 1/2	53 1/2	52 1/2	52 1/2	28 1/2	28 1/2	28 1/2	29 1/2	...	...	...	...	...
3...	52 1/2	53 1/2	52 1/2	52 1/2	29 1/2	29 1/2	29 1/2	29 1/2	...	...	...	...	...
4...	52 1/2	53 1/2	52 1/2	52 1/2	29 1/2	29 1/2	29 1/2	29 1/2	...	...	...	...	...
5...	53 1/2	54 1/2	56 1/2	58 1/2	51 1/2	52	29	29	...	...	...	...	...
6...	53 1/2	54 1/2	57	59 1/2	51 1/2	52 1/2	29	29 1/2	47	47	...	...	...
7...	53 1/2	54 1/2	57	59 1/2	51 1/2	52 1/2	29	29 1/2	47	47	...	...	...
8...	54	54 1/2	57 1/2	58 1/2	50 1/2	51 1/2	29	29	...	...	...	...	...
9...	54 1/2	55	58 1/2	58 1/2	50 1/2	51	28 1/2	29	47 1/2	47 1/2	...	...	...
10...	55	55 1/2	55	56 1/2	50 1/2	50 1/2	29	29	...	...	...	...	...
11...	55	55 1/2	55	56 1/2	50 1/2	50 1/2	29	29	...	...	...	...	...
12...	55 1/2	56 1/2	58 1/2	59 1/2	50 1/2	51 1/2	29 1/2	29 1/2	...	...	...	...	...
13...	55 1/2	55 1/2	58 1/2	59 1/2	50 1/2	50 1/2	...	...	55	55	...	...	...
14...	56	56 1/2	58 1/2	60 1/2	51 1/2	51 1/2	29 1/2	29 1/2	...	...	...	...	...
15...	56	56 1/2	58 1/2	60 1/2	51 1/2	51 1/2	29 1/2	29 1/2	...	...	...	...	...

* Holiday.

For the week ending October 20 Prime Contract timothy sold at \$5.30@5.32 1/2 per cental: Prime Contract clover seed at \$8.50; Hungarian at \$1.00@1.50: German millet at \$0.75@1.25: buckwheat at \$1.35@1.40 per 100 pounds. Receipts of hay for the week were 7,561 tons, against 4,908 tons the previous week: shipments were 430 tons, against 489 tons for the previous week. Prices declined \$0.50@1.00 per ton. Sales of No. 1 timothy ranged at \$10.00@11.00 for good to fancy; No. 2, \$8.75@9.75; Mixed, \$8.50@9.00: not graded, \$7.50@10.00; threshed, \$5.00@5.50: Illinois Upland Prairie, \$6.00@7.75; Indiana, \$6.00@8.25 for fair to choice and \$9.00 for fancy; Kansas, \$5.00@7.00 for poor and \$10.00@10.50 for choice; Iowa, \$6.00@9.50 for poor to good and \$10.00@10.75 for choice to fancy; No. 2 Prairie, \$4.50. Wheat straw sold at \$4.50: oat straw at \$4.50, and rye straw at \$6.00@6.25.

For the week ending October 27 Prime Contract timothy sold at \$5.30@5.32 1/2 per cental: Prime Contract clover seed at \$8.40@8.65; Hungarian at \$1.00@1.50: German millet at \$0.75@1.25: buckwheat at \$1.20@1.40 per 100 pounds. Receipts of hay for the week were 6,809 tons: shipments 876 tons. During the early part of the week the offerings were very heavy and the market was overstocked, especially with poor hay. A moderate inquiry existed for choice grades, at a decline of 25@50 cents per ton, but the poorer grades ruled exceedingly dull. There was scarcely any demand and it was almost impossible to dispose of consignments. Toward the close the receipts became smaller and although the demand did not improve much, a firmer feeling prevailed. Sales of No. 1 timothy ranged at \$9.75@10.50 for good to fancy; No. 2, \$8.00@9.50; mixed, \$7.00@9.25; not graded, \$6.50@9.50; threshed, \$5.50@6.00: Illinois Upland Prairie, \$4.00 for heating and \$5.00@7.00 for fair to choice; Indiana, \$5.00@7.50 for fair to choice, and \$9.00 for fancy; Kansas, \$6.00 for poor, and \$10.00 for choice; Wisconsin, \$6.50: Iowa \$4.50@6.00 for poor and heating, \$7.00@10.00 for fair to choice, and \$10.50@11.00 for fancy: No. 2 prairie, \$5.00. Wheat straw sold at \$4.00: oat straw at \$4.00@4.50, and rye straw at \$5.50@6.50.

For the week ending November 3 Prime Contract timothy sold at \$5.47 1/2@5.57 1/2 per cental: Prime Contract clover seed at \$8.65: Hungarian at \$1.00@1.50: German millet at \$0.75@1.25: buckwheat at \$0.80@1.35 per 100 pounds. Receipts of hay for the week were 3,771 tons: shipments 814 tons. The arrivals were small, and choice hay was rather scarce. A good demand existed, and prices advanced 25@50 cents per ton. Low and medium grades were in fair supply, and sold a little more readily on account of the scarcity of choice hay. Sales of No. 1 timothy ranged at \$9.50@10.50 for fair to choice, and \$10.75@11.00 for fancy late in the week. No. 2, \$8.50@9.25; mixed, \$8.00; not graded, \$9.00@9.50; threshed, \$6.00: Illinois \$6.50@7.50; Indiana, \$5.00@8.00 for poor to fancy; Kansas, \$10.00; Iowa, \$7.00@8.00 for poor to fair, \$9.00@10.50 for good to choice, and \$11.00@11.50 for fancy: No. 2 prairie, \$5.00: packing hay, \$4.00. Wheat straw sold at \$4.25, oat straw at \$4.00, and rye straw at \$5.50@6.50.

For the week ending November 10 Prime Contract timothy sold at \$5.40@5.45 per cental: Prime Contract clover seed at \$8.65@9.10; Hungarian at \$1.00@1.50: German millet at \$0.75@1.25; buckwheat at \$1.20@1.30 per 100 pounds. Receipts of hay for the week were 2,885 tons: shipments 192 tons. A steady and firm feeling prevailed during the past week. The arrivals were small, scarcely enough to supply the local demand. All choice grades met with ready sale,

and the advance of the previous week was fully maintained. Medium grades as usual a little slow, yet sellers were able to dispose of consignments with a fair degree of readiness. Shipping inquiry very light. Sales of No. 1 timothy ranged at \$10.00@11.00 for good to choice; No. 2, \$9.00@10.00: mixed, \$7.00: not graded, \$8.50@10.00; threshed, \$6.50: Illinois, \$4.00 for heating, and \$6.00@8.25 for fair to choice: Indiana, \$5.50@8.50 for poor to choice, and \$9.00 for fancy; Kansas, \$8.00@10.50: Dakota, \$4.50: Iowa, \$8.00@10.50 for fair to choice, and \$11.00@11.50 for fancy: packing hay, \$4.50. Wheat straw sold at \$4.50, oat straw at \$4.50, and rye straw at \$5.50@6.50.

RECEIPTS AND SHIPMENTS AT DETROIT.

The receipts and shipments of grain and hay at Detroit, Mich., during the 5 weeks ending November 3, as compared with the same period of the preceding year, were, according to Geo. M. Lane, secretary of the Board of Trade, as follows:

Articles.	Receipts.		Shipments.	
	1894.	1893.	1894.	1893.
Wheat, bushels.	418,511	1,295,102	398,245	1,072,123
Corn, bushels.	107,767	123,578	18,247	40,856
Oats, bushels.	261,769	197,173	64,246	...
Barley, bushels.	259,292	59,598	...	2,636
Rye, bushels.	7,961	8,508	6,846	10,965
Hay, tons.	1,221	...	20	...
Flour, barrels.	16,610	18,658	11,228	15,265

RECEIPTS AND SHIPMENTS AT DULUTH.

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, Nov. 10, 1894, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Albany	5,000	235,000	.....	.....	45,000
Baltimore	1,059,000	27,000	190,000	29,000	.....
Boston	1,021,000	26,000	398,000	18,000	.....
Buffalo	3,454,000	220,000	46,000	73,000	1,176,000
do afloat	.....	.....	.....	.....	.....
Chicago	25,391,000	1,078,000	1,599,000	161,000	63,000
do afloat	.....	.....	.....	.....	.....
Cincinnati	20,000	14,000	196,000	9,000	180,000
Detroit	1,458,000	6,000	16,000	.....	38,000
do afloat	.....	.....	.....	.....	.....
Duluth	4,209,000	.....	313,000	19,000	297,000
do afloat	.....	.....	.....	.....	.....
Indianapolis	305,000	48,000	101,000	.....	.....
Kansas City	1,529,000	22,000	307,000	4,000	.....
Milwaukee	735,000	.....	12,000	23,000	8,000
do afloat	.....	.....	.....	.....	.....
Minneapolis	12,905,000	6,000	247,000	36,000	82,000
Montreal	692,000	.....	111,000	1,000	2,000
New York	13,704,000	231,000	2,642,000	42,000	1,000
do afloat	356,000	94,000	535,000	.....	214,000
Oswego	20,000	17,000	.....	.....	350,000
Peoria	192,000	49,000	276,000	9,000	.....
Philadelphia	1,187,000	28,000	193,000	.....	.....
St. Louis	6,496,000	110,000	662,000	9,000	44,000
do afloat	39,000	.....	40,000	.....	.....
Toledo	8,022,000	50,000	50,000	10,000	1,000
do afloat	.....	.....	.....	.....	.....
Toronto	83,000	.....	15,000	.....	44,000
On Canals	1,488,000	349,000	602,000	.....	597,000
On Lakes	1,312,000	268,000	368,000	6,000	777,000
On Miss. River	.....	.....	.....	.....	.....
Total	81,220,000	2,638,000	9,065,000	449,000	3,993,000
Corresponding date, 1893	74,052,000	8,041,000	4,746,000	56,000	3,210,000

INSPECTED RECEIPTS AT CHICAGO.

According to the report of Chief Grain Inspector George P. Bunker the grain received at Chicago during the month of October, 1894, was graded as follows:

Railroad.	WINTER WHEAT.				No. G'de.					
	White.	Hard.	Red.							
	2	3	4	1	2	3	4	5	6	
C., B. & Q.	1	1	5	1	149	59	1	3	3	
C., R. I. & P.	1	18	8	18	22	9	1			
C. & A.	5	40	47	96	119	11	3			
Illinois Central	2	3	17	31	155	198	15	8		
Freeport Div.	.....	.....	1	.....	.....	.....	.....	.....	.....
Galena Div. N. W.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Wis. Div., N. W.	.....	.....	2	.....	.....	.....	.....	.....	.....
Wabash	3	4	1	6	2	172	120	10	4	
C. & E. I.	2	.....	.....	.....	231	86	10	11		
C., M. & St. P.	.....	.....	.....	4	4	.....	1			
Wis. Cent.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gr. Western	.....	.....	24	5	7	2	.....	.....	.....
A., T. & S. Fe.	21	66	20	31	33	4	4	4	4	
Through & Spec	2	39	1	1,056	147	7	3	3	3	
Total each grade	10	13	2	146	180	1,909	793	98	38	
Total W. wheat	.....	.....	.....	.....	.....	.....	.....	.....	3,189	

CORN.

Railroad.	Yellow.			White.			No. Grade.
	2	3	2	3	4		
C., B. & Q.	262	17	30	3	332	44	14
C., R. I. & P.	84	3	2	2	147	33	2
C. & A.	237	27	18	13	202	34	35
Illinois Cent.	365	53	67	10	175	53	31
Freeport Div.	61	3	1	.....	36	1	5
Gal. Div. N. W.	24	2	3	.....	55	3	5
Wis. Div. N. W.	.....	.....	.....	.....	.....	.....	.....
Wabash	171	42	32	3	52	25	17
C. & E. I.	39	14	11	7	69	16	24
C., M. & St. P.	7	2	.....	.....	7	9	.....
Wis. Central	.....	.....	.....	.....	.....	.....	.....
C. G. Western	3	.....	.....	7	3	1	1
A., T. & S. Fe.	37	4	3	1	66	19	3
Thr'gh & Spcl	143	30	11	7	58	8	18
Total each grade	1,430	200	178	46	1,206	248	155
Total corn	.....	.....	.....	.....	.....	.....	3,594

OATS.

Railroad.	White.			White Clipped.		No. G'de.
	1	2	3	2	3	
C., B. & Q.	342	169	119	39	.....	7
C., R. I. & P.	110	172	29	48	4	9
C. & A.	72	23	88	34	.....	3
Illinois Central	80	218	177	69	.....	4
Freeport Div.	81	37	15	13	.....	3
Galena Div. N. W.	120	141	49	29	.....	1
Wis. Div. N. W.	92	20	2	2	.....	.....
Wabash	155	23	77	26	.....	7
C. & E. I.	84	87	233	67	.....	7
C., M. & St. P.	188	80	53	18	.....	.....
Wisconsin Central	1	.....	.....	.....	.....	.....
C. G. Western	62	74	30	20	.....	.....
A., T. & S. Fe.	69	41	56	8	.....	6
Through & Special	94	39	25	10	.....	5
Total each grade	1,548	1,124	968	383	4	52
Total oats	.....	.....	.....	.....	4,074	.....

SPRING WHEAT.

Railroad.	Colorado	2	3	4	No Grade	White.		Mixed Wheat.



Ashtabula, Ohio, may have a new brewery. A brewery may be erected at Hazleton, Pa. An elevator is being erected at Mokena, Ill. Davis & Co. will erect an elevator at Nevada, Mo. Two new elevators are starting up at Metamora, Ill. Frank A. Dole will erect an elevator at Buffalo, N. Y. Burke & Etnier have sold their elevator at Chatfield, Minn. An elevator is to be erected at Cleves, Ohio, by Dr. Buck. Sanders & Scheble are handling grain at Wenatchee, Wash. Drone & Co.'s elevator at Zanesville, Ohio, is completed. McGill & Co. are erecting another elevator at Milford, Ill. Martin & Rundle intend to erect an elevator at Flat Rock, Ill. T. F. Marshall's grain warehouse at Oakes, N. D., is completed. Buell & Sumner have started in the grain business at Buffalo. T. P. Lyman is dealing in grain and coal at Barnes City, Iowa. M. M. Harrah, dealer in grain, etc., at Early, Iowa, has sold out. A 40-ton cottonseed oil mill will be erected at Jacksonville, Ala. J. S. Maughlin & Co., grain dealers at Onawa, Iowa, have sold out. Charles Shogren is about to erect an elevator at Smolan, Kan. The new farmers' elevator at Winona, Minn., is now doing business. Bragg & Son of Dexter, Mo., have built a grain and feed warehouse. The elevator at Coffeyville, Kan., is crowded to its utmost capacity. Melze & Perkins' new elevator at Merrill, Mich., is about completed. William Cosgrove will erect a hay storehouse at Watertown, N. Y. Claus Meyer has engaged in the grain business at Jacksonville, Fla. A large grain warehouse is being contemplated at Ludersville, Ohio. Elliott & Armstrong are erecting an elevator at Jeromeville, Ohio. A flat warehouse is being constructed at Pettipiece Station, Manitoba. McCormick & Co.'s grain warehouse at Platteville, Wis., is completed. T. Balliett, the grain buyer at Nevada, Ohio, is having a good business. The Star Elevator Company is erecting a warehouse at East St. Louis, Ill. The Downey Elevator at Sidell, Ill., has received numerous improvements. The Blackmer grain warehouse at Fairmount, N. D., is nearing completion. R. L. Gribble is in the grain, feed and flour business at Montesano, Wash. There are thirty-one elevators and four flour mills in Redwood county, Minn. The Empire Inland Grain Company of Palouse, Wash., has been dissolved. J. Schultz has placed an engine and boiler in his elevator at White Hall, Ill. Fred. Emmert's brewing plant at St. Paul, Minn., is to be entirely remodeled. A large brewing plant is to be erected at Jacksonville, Fla., to cost \$200,000. F. M. Douglas and others will erect a cottonseed oil mill at Alexander City, Ala. The Middleboro, Ky., Feed and Fuel Company intend to establish a feed mill. A 60,000-bushel elevator will be erected by G. F. Williams & Sons at Columbus, Ohio. It will have a

cleaning and feed department, and will be run in connection with their mill.

J. J. Coonrod has sold his interest in the grain and coal business at Jesup, Iowa.

The rice mill at Lake Charles, La., is again running after an extended shut-down.

An \$80,000 brewing and storage plant is to be established at Willimansett, Mass.

The Sleuman Mercantile and Grain Company of Trumbull, Neb., has sold out.

A. J. Lewis & Co.'s corn and cotton warehouse at Edwards, Miss., is completed.

J. B. Eckerman is building a 15,000-bushel addition to his elevator at Havre, Iowa.

E. T. Whitney is carrying on the grain and feed business at Montgomery, Iowa.

The new cottonseed oil mill at Blooming Grove, Texas, is completed and running.

W. L. Matthews is now operating his new 30,000-bushel elevator at Marquette, Mich.

Work on the Malt and Grain Company's plant at Appleton, Wis., is well under way.

The Pabst Brewing Company will add another large building to its plant at Milwaukee.

Stock in the United Elevator Company of St. Louis, Mo., was recently quoted at \$48.50.

Kelly & Lysle are building a large warehouse east of their mill at Leavenworth, Kan.

The Felger Bros. of Burbank, Ohio, are about to erect an elevator 100x150 feet in size.

The Columbia Grain and Stock Exchange bucket-shop concern, at Chicago, has failed.

In one day recently the Asotin Warehouse at Portland, Ore., received 77 tons of wheat.

The American Brewing Company of St. Louis, Mo., is building an addition to its brewery.

A 10,000-bushel grain warehouse is being erected at Spokane, Wash., for the C. & C. Mills.

Clouser & Fair, in the hay baling business at Ashland, Ohio, have dissolved partnership.

The E. P. Knight Company's new elevator at Lafayette, Ind., is doing a good business.

W. W. Songer is about to erect a 36,000-bushel elevator at Alvan, Ill., at a cost of \$2,500.

The Sprague, Wash., Roller Mill Company's new elevator is completed and in operation.

J. B. Wooten intends to erect a cottonseed oil mill of 20 tons' capacity at Morrillton, Ark.

J. H. Cook & Co., grain commission dealers at Duluth, Minn., have dissolved partnership.

Geo. J. Hamlin has retired from the grain commission firm of J. L. Ball & Co. of Chicago.

The Springfield, Mass., Brewing Company contemplate the erection of extensive buildings.

Stewart & Sawyer, dealers in grain and agricultural implements at Jesup, Iowa, have sold out.

Geo. D. Laing, grain dealer at Dixon, Ill., is now operating his new elevator and warehouse.

The Cherokee Hay Company has been incorporated at Chicago with a capital stock of \$15,000.

J. S. Calkins has commenced work on the construction of his elevator at Defiance, Ohio.

Robert Windham's elevator at Glenwood, Iowa, is completed and will shortly be in operation.

Farnsworth & Co., dealers in grain and hay at Palouse, Wash., have dissolved partnership.

The Winona Mill Company's new terminal elevator at Winona, Minn., will be run by electricity.

T. McGill & Co.'s increasing business at Milford, Ill., compelled them to enlarge their elevator.

W. B. Hudson, grain commission merchant at Mankato, Minn., has retired from the business.

The Seattle, Wash., Produce Company shipped 600 sacks of grain and feed to Honolulu October 16.

Hughes & Glennon's 50-barrel brew house at Pittston, Pa., will be remodeled to a 200-barrel plant.

The Phoenix Brewing Company will make improvements and additions to its plant at Louisville, Ky.

The Zenith Elevator Company at Duluth, Minn., is erecting a one-story grain warehouse at that city.

B. H. Palmer, grain buyer at Ashland, Ohio, will erect and operate a grain warehouse at Jeromeville.

The Consumers' Brewing Company has been incorporated at Chicago, with a capital stock of \$600,000.

Simmonds & Gildemeister, grain and oil cake exporters at New York City, have dissolved partnership.

Nixon & Deck, Attica, Ind., lost a considerable amount of clover seed some time ago by thievery, but

the argus-eyed marshal discovered where the thieves had hidden it. The thieves were not captured.

Johns & Iwen, dealers in grain and fuel at Fessenden, N. D., have been succeeded by Johns & Shouard.

Smith & Whitney, grain dealers at Sebago Lake, Maine, are making improvements to their establishment.

The firm of Tuke & Co., dealers in hay, feed, etc., at Portland, Ore., has been succeeded by Albers & Tuke.

A large elevator may be erected at Cape Girardeau, Mo., next spring, where it is said an elevator is badly needed.

Reports of weevily wheat in Chicago elevators, which were set afloat last month, have been proved untrue.

Hughes & Glennon of Pittston, Pa., intend to erect a brew house, elevator and malt storage house, to cost \$25,000.

Melze & Perkins' new elevator at Merrill, Mich., is nearly completed. It will have a capacity of 15,000 bushels.

Gilbert Plowman has succeeded to the hay business of G. Plowman & Co. of New York, W. J. Plowman retiring.

Campbell & Pierce of Castine, Ohio, are now handling coal in connection with their grain and feed business.

Campbell & Co. of Attica, Ind., have dissolved partnership, W. C. Campbell continuing in the hay business.

Spellman & Bock have started in the grain business at Williamsburg, Ill., where they will erect cribs and an office.

Crates Bros. & Co. are building a 5,000-barrel storage warehouse in connection with their flour mill at Circleville, Ohio.

A steamship was loaded with a cargo of 115,000 bushels of wheat in 80 minutes recently at Elevator "D" at Duluth.

W. W. Allen, grain dealer of La Fayette, Ind., has established an agency at Buffalo under the charge of G. H. Watkins.

The K. Schreier Brewing Company is erecting a 100,000-bushel barley elevator at Sheboygan, Wis., at a cost of \$7,000.

It is reported that grain buyers at Goshen, Ind., are receiving Armour bids and that considerable wheat is going to Chicago.

Wm. Hanna & Co., produce dealers at Toronto, Canada, have taken J. Clark into partnership and will deal in grain.

M. Slattery & Son have leased a building at Galena, Ill., and will use it as a grain warehouse after making needed improvements.

Michael Pope of Garfield, Wash., recently sold 7,055 bushels of 1891 wheat, which he once had an offer for of 83 cents per bushel.

The Altona Farmers' Elevator Company, Limited, has been incorporated at Altona, Manitoba, with a capital stock of \$5,000.

Calvin Holmes, grain dealer at Lett's Corner, Ind., has made an assignment with liabilities of \$2,000. Many farmers are losers.

A large farmers' elevator will probably be erected at Sioux City, Iowa, next spring. It has been under consideration for a year.

The Marion, Ohio, Brewing and Bottling Company has been incorporated, with a capital of \$100,000, and will erect a large brewery.

The new firm of Tuttle, Greenslade & Olney has been organized at Milwaukee, and will do a general grain and millfeed business.

Chicago will have increased its elevator capacity over 3,000,000 bushels this season when improvements now being made are completed.

Receipts of grain at Superior, Wis., during October were greater than during any previous month in the history of the city—8,027 cars.

The Tacoma (Wash.) Warehouse and Elevator Company have put in Prinz & Rau's iron Prince smut machines and will add another.

L. H. and H. D. Hall have bought the Zenith Elevator at Duluth, and will operate it as a cleaning house together with a feed mill.

The O'Neil Elevator Company will place two oat clippers in its elevator at South Chicago, Ill. The machines have not been selected.

J. W. Cristy & Son, grain and feed dealers at Ringwood, Ill., are putting in a new engine, feed grinder, corn sheller and other machinery.

A verdict of \$11,100 has been rendered in favor of W. S. McCrea & Co., the Chicago Board of Trade firm, in the suit to recover \$12,000 from Moses Dillon of

Sterling, Ill., for sums expended in defending defendant's margins and carrying on speculations for him.

An elevator may soon be erected at North Kankakee, Ill. The project has been talked of for some time, as it is said an elevator is badly needed.

The Saginaw Milling Company's new elevator at Saginaw, Mich., is nearing completion. It will be operated in connection with the mill.

Stockholders of the National Linseed Oil Company of Chicago have commenced proceedings to dissolve the corporation and divide the assets.

The Chicago Terminal Railway Elevator Company intends to erect an addition to the elevator at No. 2 Lumber place, Chicago, to cost \$60,000.

C. E. Robinson and P. R. Morrison, who are erecting an elevator at Clinton, Mo., have thirteen houses in Kansas and at Lowry City and Belton, Mo.

It is reported that the Chicago O'Neil Elevator Company will erect a new elevator at South Chicago similar to the one recently started by them.

The Northwestern Elevator at De Smet, S. D., has been closed temporarily. Mr. Page, the grain buyer, has been transferred to Green Valley, Minn.

J. S. Barnes & Co. have leased a building at Remington, Ind., for the purpose of handling grain in connection with their extensive hay business.

Wm. Swick of Britton, Mich., has purchased a half interest in the Van Nocker Elevator at Dundee. The name of the new firm is Van Nocker & Swick.

Citizens of Meriden, Conn., are talking of petitioning the legislature for permission to issue bonds for \$40,000 for the purpose of erecting an elevator.

There have been about 175,000 bushels of wheat received at Morristown, Ind., this year, of which Mellis, Patten & Buckingham received 80,000 bushels.

By order of the court the grain commission firm of Robert Lindblom & Co. of Chicago, Ill., has been dissolved. Differences arose between the partners.

The Nashville & Chattanooga Railroad Company is about to begin the erection of a grain elevator at Bridgeport, Ala., at an estimated cost of \$15,000.

A. Laidlaw & Co. of Toronto, Canada, write us that they have closed a contract for an elevator for the Canada Produce Company at Mile End, Montreal.

Thomas Baldwin & Son of Dixon, Ill., write us that they have just purchased the stone elevator and warehouse and will operate it in connection with their mill.

It is said that considerable feed is accumulating at Buffalo and other lake ports, in expectation of realizing the benefits of higher freight when navigation closes.

Chalenor & Co., grain dealers of Palouse, Wash., write us that they have succeeded to the business of Perry & Chalenor. The new firm will build up a good business.

Sheppard & Hartley's malthouse at Middletown, Ohio, will be equipped with new machinery. The Sohngen Malting Company of Hamilton has purchased the plant.

The Coöperative Wagon and Machine Company of Idaho Falls, Idaho, is buying grain. A recent purchase was 25,000 bushels of grain, which came from one ranch.

The K. Schreier Brewing Company is erecting a 100,000-bushel elevator at Sheboygan, Wis. It will be 44x50 feet in size and 60 feet high, and will cost about \$6,000.

The Farmers' Elevator Company at Norway, Iowa, handles all kinds of grain and coal and runs a rolled oat mill. A. Tamblyn is president and B. F. Tamblyn, manager.

A local paper at Tacoma, Wash., cautions dealers to look out for weevily wheat coming from San Francisco, which implies that Port Costa's infested grain is being "moved."

Newton & Strong are acting as agents for Kern & Gardner, grain dealers of Bellevue, at Parkerstown, Ohio. They have handled over 100,000 bushels of grain since July 1.

Final arrangements for the change in name of the Duluth Elevator Company to the Globe Elevator Company were completed October 18, when the actual change took place.

The Waterville Produce and Commission Company has constructed a large warehouse at Ephrata, Wash., where large quantities of grain and potatoes are being received and shipped.

Finlay Barrell has formed a partnership with J. L. Ball in the grain and provision commission business at Chicago, taking the place of George Hamlin in the firm of J. L. Ball & Co.

There are people in the cash wheat trade who express surprise at the activity of a firm of shippers which came into prominence a short time ago, and who are supposed to be acting for a prominent eleva-

tor owner in getting comfortably around the provision in the late elevator agreement regarding shipments by elevator companies.—*Chicago Tribune*.

The 650,000-bushel addition to the Marine Elevator at Buffalo, N. Y., is now completed, making the total capacity of the elevator 780,000 bushels. The bins are constructed of pine.

W. H. McIntosh, president of the Mobile, Ala., Commercial Club, says that work on the new elevator will commence before the end of this month. A bonus of \$15,000 has been raised.

The W. M. Ellwood Flour and Feed Exchange has been organized at Elkhart, Ind. Under the management of Albert Ellwood the company will deal in grain, hay, flour, feed, etc.

Valentine & Co., "commission merchants" of Chicago, contemplate establishing a branch office at Hammond, Ind. Bucket shops should get as near as possible to the source of their supplies.

Sullivan, Ill., is enjoying a boom in the broomcorn market. It is said that all the warehouses are full, that much is stored elsewhere throughout the city, and that shipments are very heavy.

The Tacoma Land Company will build a 2,000,000-bushel grain warehouse at Tacoma, Wash. It will be 750x200 feet in size, two stories high, and will be completed by the beginning of next season.

The new elevator of the Calumet Elevator Company, known as the Bartlett, Frazier & Co. house at South Chicago, Ill., received its first grain November 1. It has a capacity of about 1,000,000 bushels.

About two-thirds of the estimated surplus of Manitoba wheat available for export has already been shipped. Including flour in the wheat shipments, about 10,000,000 bushels have been shipped.

The Pneumatic Steel Warehouse Company has been incorporated at Chicago with a capital stock of \$200,000. Incorporators, John Hill Jr., William Nash, H. F. Dousman, John C. Ross and H. E. Broughton.

P. H. Graves, the Seneca, Ill., grain dealer who failed last August, has been indicted by the grand jury on the charge of embezzling 2,000 bushels of grain, valued at \$800, from Thomas Walsh on August 12.

The Pacific Coast Elevator Company are erecting a temporary house at Portland, Ore., to enable them to carry on their business until the erection of their elevator to take the place of the one burned some time ago.

Al. Heath, Joe Hall, Arthur Schwennecker and James Brown have been arrested at Exira, Iowa, and will be asked what became of a lot of grain which disappeared from the glucose elevator about a year ago.

Milmine, Bodman & Co. of Chicago have bought the elevator and grain business of Gunder Bros. at Homer, Ill., and have placed Wm. W. Mudge in charge. They are having corn cribs erected at that place.

The St. Paul and Kansas City Grain Company's elevator at Savanna, Ill., is completed and taking in grain. It has a capacity of 35,000 bushels, and next spring an annex of much larger capacity will be erected.

Some Seattle, Wash., elevator men complain that the grain sacks they are receiving are covered with coal dust, with which they came in contact in dirty cars. Shippers should make complaint to the railroad companies.

Complaints are being made to Chief Inspector Clausen of the Minnesota grain inspection department of the large number of car doors being left open by track men. This leaves grain exposed to bad weather and worse thieves.

Carrington & Hannah's new elevator at Kankakee, Ill., possesses the largest smokestack in the city. It is 9 feet square at the base, 6 feet square at the top and is 72 feet high. It contains 80,000 bricks and will cost over \$700.

J. B. Kennard has brought suit for \$5,000 damages in the Circuit Court at St. Louis, Mo., against the St. Louis United Elevator Company. Kennard, while in the employ of the company, broke his ankle and had a foot amputated.

J. K. Campbell has recently equipped his elevator at Lewisburg, Ohio, with a feed burr and has adopted facilities for handling hay. Chas. T. Pierce is superintendent of the business at Lewisburg, and has established a good trade.

In a seed wheat case between the Northwestern Elevator Company and the Minnesota Agricultural Company of Minneapolis a decision of a lower court has been reversed, and a verdict in favor of the elevator company has been returned.

The Midway Elevator Company's elevator to be erected by Honstain Bros. in Southeast Minneapolis will have a capacity of 700,000 bushels. It will be a cleaning and storage elevator combined with a working room 44x106 feet in size and supplied with a complete outfit of cleaners. There will be four receiving

legs capable of 80 cars per day. The house will be finished by December. Honstain Bros. have another contract for an elevator in the same locality of a capacity of 500,000 bushels.

J. M. Berry, M. J. Berry and C. W. Quinn have incorporated the Yakima Warehouse Company, with \$1,500 capital, and will engage in the commission business, with headquarters at North Yakima, Wash.

Hamilton & Rourke have leased all the grain warehouses along the line of the Washington & Columbia River Valley Railroad, in Walla Walla, Columbia and Umatilla counties, Washington, and are building up a good business at all their houses.

The company which will operate the new 1,000,000-bushel Keith Elevator, which is now being completed, has made application to the Chicago Board of Trade that the new warehouse be made regular. The application has gone to the regular committee.

Sumner & Sons are erecting an 85,000-bushel addition to their elevator at Milford, Ill., and anticipate erecting houses at other stations. This makes their capacity at Milford 100,000 bushels. They now have a splendid business, which is still growing.

During the five weeks from September 22 to October 20, 918 cars of wheat were inspected at Winnipeg, against 1,264 cars during the same time in 1893. Considerable of the wheat moving is inspected at Ft. William, and is not given in these figures.

McDermott & Meikle have added a feed grinder to their elevator at Crescent City, Ill., and are doing a good business in the feed line. Feed grinding was never so profitable as at present, and country elevators seem to be especially adapted for the business.

H. A. Peterson, who formerly had charge of the farmers' coöperative elevator at Cedar Bluffs, Neb., was charged by the company to be in debt to them \$1,000. The court found that he was indebted but \$60, and the plaintiffs paid the costs of their suit.

Douglas Bros., grain dealers at Cedar Rapids, Iowa, have incorporated as the Iowa Mill and Elevator Company, with a capital of \$100,000. W. D. Douglas is president, R. G. Brott vice-president and G. B. Douglas secretary and treasurer. A new elevator may be erected.

Farmers are said to be looking for a certain grain dealer (whose name is not given) in Waukesha, Wis., who purchased large quantities of barley of them without paying and shipped the grain to distant points. The same old story of a misplaced trust in an irregular dealer.

Frank Marshall has recently added a Nordyke & Marmon Bran Packer, two Nordyke & Marmon Reels and one special Nordyke & Marmon Scalper, and a mill for grinding the offal from his oat clippers, to his elevator at Forty-seventh street and the Chicago & Western Indiana tracks.

The one-eyed man who hoodwinked Philadelphia grain men on the Richland game of falsely representing himself as a member of an outside firm, thereby inducing them to cash checks, has been captured in Washington. He had worked Baltimore grain men and went to Washington.

On October 22 the Central Stock and Grain Exchange was incorporated at Chicago with a capital stock of \$100,000. Incorporators: Victor H. Arnold, Arthur E. Greene, Jas. F. Southard. On October 23 the Central Grain and Stock Exchange certified to a dissolution of organization.

W. E. Sherer, representative of S. Howes in the Northwest, reports orders for Eureka grain cleaning machinery as follows: James Pye, Spokane, Wash., a horizontal brush and an oat hulling separator; St. Anthony and Dakota Elevator Company's elevator at Edinburg, N. D., a No. 3 separator, and others.

The Lacey Grain Company of Sioux Falls, S. D., has been sued as a corporation and also as individual members of a partnership to recover \$1,400, which the Dakota National Bank claims to have advanced it on two bills of exchange issued against Greenleaf & Tenney, and for which acceptance was refused. The company has assigned with liabilities at \$20,000.

A "discretionary pool" does not necessarily show the better part of the investor's valor; it is simply an institution in which a speculator deposits money and realizes 20 to 100 per cent. per month—of course. Such pools have recently been raided in Pittsburgh, Pa., where they were flourishing and thriving until exposed.

The 100,000-bushel addition to the Pratt elevator at Seventy-third street and Western avenue, Chicago, has just been finished by the Metcalf-McDonald Company, contractors. The contract time was thirty days, but the time between the commencement of the foundation and the finish of the house complete was just twenty-one days.

The Moore Grain and Elevator Company of Kansas City has brought suit to recover a car of wheat from the Mechanics' Bank. The wheat was sold by the Moore Company to the Hubbard Grain Company, which deposited the bill of lading in the Mechanics' Bank and ordered a certified check to be issued to the Moore Company for \$367, the purchase price. Instead

of so doing the bank took the bill of lading and applied the amount to an old account of the Hubbard Grain Company. The Moore Grain Company was left to hold the bag and accordingly seized its car of wheat.

M. J. Forbes of Duluth, receiver of the Northern Pacific Elevators, sold the system at auction October 27 to Emerson W. Peet of St. Paul for \$250,000, on behalf of the reorganization committee. The system will be incorporated into the Consolidated Elevator Company, and will include all the terminal elevators at Duluth, besides plants in Minnesota and North Dakota.

The Produce Exchange at San Francisco has notified McGlaulin & Co. that 25,000 tons of weevily wheat in warehouses at Port Costa had to be removed in order to save other wheat stored in vicinity. The infested grain is wheat that has been stored for a long time. McGlaulin & Co. are the firm that engineered the big wheat deal which resulted in a loss amounting to \$1,000,000.

Among recent visitors at the new iron elevator in Toledo, Ohio, were A. C. Smith, J. Melrose, Mr. Neal of Wright, Nash & Co.; John Hill Jr. of McCourtie, Hill & Co.; Mr. Dousman of the American Cereal Company, and Mr. Tucker and Mr. Ramsdale, Chicago grain merchants, who went to examine Churchill & Coon's pneumatic system of handling grain.

We ought before this to have commended the enterprise of some of our members in adopting advanced and improved methods of building elevators and of elevating the grain by a pneumatic process. The storage is by separate iron tanks and combines the element of safety from fire. The whole scheme is a success. Chicago elevator men have inspected it, and propose to imitate it.—*Toledo Market Report*.

In all of the suits brought against the Hawkeye Grain and Commission Company (a concern which did business in Sioux City, Iowa, and in Omaha, Neb., until it encountered a rise in wheat last summer) I. M. Neuman alleges that all money he holds in his hands is his own and not the property of the defunct bucket shop. Heads I win, tails you lose.

The Pneumatic Steel Warehouse Company, which has been incorporated at Chicago with a capital of \$200,000, is still busy with preliminary arrangements. It is proposed to construct a nest of steel tanks 33 feet high and having a storage capacity of 500,000 to 1,000,000 bushels. John Hill Jr., William Nash, John C. Ross, H. F. Dousman and H. E. Broughton, all well-known Board of Trade men, are interested in the enterprise.

It is generally believed that Chicago elevators contain a great deal of wheat of uncertain age, and it is being charged that it could not be turned out without discovery. Those who are not interested in the Chicago market even say that no one is safe in ordering wheat from Chicago elevators, and point to two companies receiving very old wheat when ordering new. It is probable that something definite will be done regarding the matter.

A 75,000-bushel elevator will be erected at Houston, Texas. It will be of frame, sheathed with corrugated iron. In connection with the elevator will be a 500-barrel flour mill and a 200-barrel corn mill. The mill buildings will be of brick, and the entire cost will amount to \$85,000. A full equipment of modern machinery will be put in and a cross compound condensing Corliss Engine will supply power. McCutcheon & Co. have made the plans.

An attorney has been retained by the Pittsburgh Chamber of Commerce to prosecute blind or discretionary pools. He has been on a tour of investigation, including Philadelphia and New York, and will begin prosecutious immediately under existing laws. If they prove ineffective the Chamber of Commerce will have a special act passed at the next General Assembly that will reach the blind pools. This is a laudable enterprise on the part of legitimate traders, and it is to be hoped that other commercial bodies will follow their example.

Martin, Mitchell & Co., grain merchants at Winnipeg, Manitoba, recently sent to their agent at Wanwana a package of money in small bills amounting to \$2,000. Storey, the agent, was notified of its arrival and signed for it, but forgot to take it from the express company's office. Next morning he called for it, but was told he had taken it. The only clew to its disappearance is that two strangers stood on the platform when Storey signed for the package. Suit has been brought against the express company to recover the lost package.

In April, 1891, Dreyfus Freres & Co. of London, Liverpool and Paris, purchased from Starr & Co. of San Francisco, 14,200 quarters of wheat, 10 per cent. more or less at 45s. 9d. a quarter. The grain was to be shipped from August to October, it being agreed that any deficiency should be paid by the seller at the contract price. On October 9 Dreyfus Freres & Co. sold the cargo to a Liverpool firm at 44s., and the next day shipped a cargo supposed to consist of 12,780 quarters, but which was found to be deficient 150 tons. The cargo was refused and Starr & Co. charged with sharp practice. A long litigation followed, the case being taken before the House of Lords and many other tribunals. Dreyfus Freres & Co. lost \$55,000 on the

wheat and finally brought suit in the United States, where they recently accepted a compromise of \$17,500.

Regarding the burning of Peavey's elevator at Portland, Ore., a dispatch says: "The Portland elevator loss is still unsettled. The elevator was overinsured fully \$25,000, and the assured claims the face value of the policies under the Oregon valued policy law. The companies will probably have to pay. Among the larger losses are those of companies whose representatives worked hard and successfully to rescind the 10 per cent. advance in rates imposed to meet the increased losses expectant upon the passage of the law. It is hardly probable that the law will be repealed." Mr. Peavey gives the insurance companies the choice between paying or rebuilding.

Grain storage charges in the big warehouses mount up rapidly when the property is permitted to remain for any length of time. An elevator receipt calling for 700 bushels No. 3 Red Winter wheat, dated May, 1890, sold the other day in Chicago for \$5. In other words, the owner of the wheat preferred to close out all interest he had in it for this small sum rather than withdraw the wheat from the warehouse and pay the accumulated storage charges. Another receipt of the same character calling for one carload sold at 3 cents per bushel for the wheat, or say \$18@20 for the car. In one instance the accumulated storage amounted to 48 cents per bushel and in the other 50½ cents during the 4½ years in which the property had been thus cared for.

Fires, Casualties, Etc.

The grain elevator at Eddlestine, Ill., was destroyed by fire October 26.

An elevator at Granite Falls, Minn., was burned October 14, at a loss of \$12,000.

A brewery at Lancaster, Pa., was destroyed by fire October 28, at a loss of \$10,000.

A hay and grain warehouse at Fort Recovery, Ohio, was destroyed by fire recently at a loss of \$3,500.

During the last week in October thousands of tons of hay were destroyed by prairie fires in Nebraska.

J. P. Baden's grain warehouse at Winfield, Kan., was recently damaged by a windstorm to the extent of \$1,000.

Colehower & Wink's elevator at Toluca, Ill., was destroyed by fire October 27, together with 25,000 bushels of grain.

A freight warehouse at East St. Louis, Ill., which was filled with grain, hay and cotton, was destroyed by fire October 29.

A fire at Coxsackie, N. Y., October 18, destroyed a warehouse full of grain, hay, etc. The loss was covered by insurance.

The C. & C. Warehouse at Rosalia, Wash., collapsed recently, being overloaded with grain. Anderson Bros. were the lessees.

The D. L. & N. Elevator at Three Rivers, Mich., was destroyed by fire recently, together with 2,000 bushels of wheat. Loss \$2,500.

Fickes & Bro.'s grain elevator at Harrisburg, Pa., sustained damage from fire October 27. Considerable grain and hay was badly damaged.

Paul Hueffner's elevator at Hager City, Wis., burned October 29, together with 20,000 bushels of grain. Total loss \$10,000; partly covered by insurance.

H. J. Rolf's grain warehouse at Elkhorn, Neb., was destroyed by fire October 11, caught from a spark from a passing locomotive. Loss \$500; no insurance.

Four hundred tons of baled hay was destroyed in the recent fire which burned J. H. Pope & Co.'s hay barn at Silver Creek, Neb. Loss \$5,000; insurance \$1,800.

The Kansas City Hay Exchange's warehouse was burned October 20. The Henry Moore Commission Company occupied the building and lost 250 carloads of hay.

The warehouse belonging to Anspacher Bros., dealers in hay, grain and lumber at San Francisco, Cal., was recently destroyed by fire. Loss \$20,000; partly insured.

The Northern Elevator Company's elevator at Portage La Prairie, Manitoba, was destroyed by fire October 19, with 20,000 bushels of grain contained therein, at a loss of \$25,000.

Worth & Boyd's hay warehouse at Kansas City, Kan., was almost completely destroyed by fire on the morning of October 15. The building covered nearly half a block and contained 20 carloads of hay, five carloads of oats and four carloads of corn. Loss

\$8,000. The fire did some damage to Baker & Corbin's grain warehouse and contents, the loss on which will be \$1,000. Both were fully insured.

The Texas and Pacific Elevator at West Wego, La., was destroyed by fire on the night of November 12. The cost of the elevator was \$200,000, and the loss amounts to \$500,000.

The flooring of the Red River Valley Elevator at Crookston, Minn., gave way October 20 and about 4,000 bushels of wheat went to the ground. The damage did not exceed \$200.

The Vernon (Texas) Elevator Company's elevator burned October 21, at a loss of \$26,000 on the building, on which was an insurance of \$5,000, and \$5,000 loss on grain, with very little insurance.

Maxwell Willis' warehouse at Kansas City, Mo., was burned in a fire October 15, which consumed a large quantity of oats, chopped feed and 50 tons of bran. Total loss \$11,650; insurance \$7,400.

Russell Munger's plant at Valparaiso, Ind., was damaged by fire to the extent of \$300 October 20. The fire broke out in a corn crib, where it is supposed it caught from a pile of ashes containing live coals.

The Pacific Elevator Company's elevator and warehouse at Wood Lake, Minn., were destroyed October 14 by an incendiary fire. The elevator contained 18,000 bushels of wheat, most of which will be a total loss.

Charles Phall, foreman of the Diamond Elevator at Kansas City, Mo., suffered a horrible death while at his work on the afternoon of October 30. He was caught in the grinding machinery and killed instantly.

The floor of the storage warehouse of Benson & Benson at Waterford, Pa., recently gave way under the strain of 900 bushels of buckwheat, and fell into the engine room. Luckily the engineer was out and escaped injury.

Hugh Bolton & Son's grain warehouse at Baltimore, Md., occupied by H. J. Clark, grain dealer, sustained a loss by fire of about \$2,500, which was covered by insurance. There were 3,000 bushels of wheat in store, which was damaged by water.

A bin in J. O. A. Whaley & Co.'s elevator at Gainesville, Texas, gave way recently and spilled 10,000 bushels of wheat on the ground. A scientific construction of grain bins is an absolute necessity in an elevator, to say nothing of its economy.

S. T. Lupe, the well-known wealthy grain dealer at Sedalia, Mo., was wounded in a shooting affray on the night of October 16. George Dixon, an ex-policeman, having some grievance against Mr. Lupe, sought admission to his office. This being refused, Dixon attempted to batter down the door. Shooting then commenced and Dixon was almost immediately killed and Lupe wounded.

The Milwaukee, Wis., Malt and Grain Company sustained a serious loss to one of their buildings by fire October 31. The fire started in the rear of the elevator, and the total destruction of the house was only averted by its timely discovery. The heaviest loss is on the barley, of which there was 80,000 bushels in store. The loss is estimated at \$50,000; insurance on elevator and contents \$54,500.

The penalty of taking an unnecessary risk was dearly paid for at Grover Hill, Ohio, November 4, when an old rust-eaten boiler in Foust's Elevator exploded. Foust, the proprietor, McDown, the engineer, and his son, 18 years old, were working near the boiler at the time of the accident. The boy was killed instantly and the two others were fatally injured. It is said the boiler had long since been condemned and was not fit for use.

James Cole's large elevator at Bushnell, Ill., was burned October 13, together with 15,000 bushels of oats, 950 bushels of corn, 400 bushels of wheat and \$1,200 worth of clover seed. There was an insurance of \$3,250 on the grain and \$1,500 on the building. The building was valued at \$5,000. The elevator was leased by Buckley, Pursley & Co. The cause of the fire is unknown, but the elevator had been left a long time without a cleaning and much refuse had accumulated.

South Dakota has contributed no wheat this year to the general supply. Minneapolis has not had fifty cars from South Dakota. So far as the millers are concerned it has been exactly as if the state had been blotted out. It has been compelled to keep its supply at home.

"Billy, what became of these samples?" "They ate 'em up, sir." "Is that so? I'll have to put a sign on these sacks and warn people that this isn't a feed barn." This dialogue took place over in one corner of the Chicago Board of Trade, where the tables are laden with the paper sacks containing samples of grain. The favorite pastime of the expert is to grab out a handful of wheat, blow away the dust and chaff, and then, after a careful examination, fill his mouth with the grain. Some of the traders seem actually addicted to the "grain habit," and that is why the samples disappear so quickly.

OBITUARY

E. Dunham, grain and hay dealer at Nichols, N.Y., died recently.

D. Albin of the firm of Lynn & Albin, dealers in grain, machinery, etc., at Union, Neb., died recently.

James Brown, who was for many years identified with the grain trade of Toronto, Canada, and an old and esteemed member of the Board of Trade, died recently.

John H. Hilferty, who for some time had had charge of elevators at Hastings, Minn., and was a well-known grain man in the West, died October 21 at the age of 65 years.

Mason Gregg, president of the Crescent Grain Company, and Harrison Gregg, president of the Harrison Gregg Grain Company of Kansas City, were grieved to learn of the sudden death of their father at Burlington, Iowa, recently.

Charles H. Marble, a leading grain merchant of Tacoma, Wash., son of A. J. Marble, a wealthy capitalist, and formerly a member of the firm of Marble, Moore & Co. of that city, died October 21 of complications of the liver.

John P. McBride, a popular young member of the Chicago Board of Trade, died November 8 of consumption, which resulted from an attack of pneumonia contracted over a year ago. He latterly represented Charles Counselman & Co.

George W. Champlin, an old member of the Chicago Board of Trade, died at Hot Springs, Ark., October 18. Mr. Champlin retired from active business five years ago. He was a popular member of the Illinois Club, where notice of his death was received with deep regret.

David S. Bennett, one of Buffalo's well-known elevator men, died November 6 at the age of 84. Ten years ago Mr. Bennett began a suit against the Delaware & Lackawana Railroad Company over a piece of water front land. The long litigation which resulted so preyed upon his mind that two years ago he began to be subject to hallucinations. He was persuaded to transfer his property to his wife and was closely watched. He imagined himself possessed of \$3,000,000 worth of property, which he wished to bond. He wanted to form a gigantic elevator trust to control all the grain elevators between Chicago and New York.

Lucius S. Blake, for a long time a manufacturer of fanning mills at Racine, Wis., died November 4 of heart failure. Mr. Blake was born in Burlington, Vt., March 14, 1816, and went to Racine in 1835, being one of the first settlers in the county. In 1839 he engaged in the manufacture of fanning mills, which business he continued up to three years ago. He had done much to encourage the manufacturing business in Racine and there was scarcely an enterprise started within the past fifteen years in which he was not interested. Mr. Blake held many public offices beside his private interests, and he leaves many friends to grieve at the close of his busy career.

STOPPAGE IN TRANSITU.

The right of stoppage in transitu, as it is called, is that which a vendor, when he sells goods on credit to another, has of recovering or regaining possession thereof while they are in the hands of a carrier or middleman, in their transit to the consignee or buyer, and before they arrive into his actual possession, or at the destination he has appointed for them, on his becoming bankrupt or insolvent, says *Business Law Weekly*. It is based on the plain reason of justice and equity that one man's goods should not be applied to the payment of another man's debt, and the right to recover or regain possession before they reach the buyer's possession is undisputed.

This is the definition and explanation of the Supreme Court of Minnesota (Lewis vs. Sharvey). It also says that it has often been held that when goods have arrived at the destination contemplated by the vendor and buyer at the time of the sale and consignment, and a new transit to a new destination is put in operation by the buyer, then the original transit is ended, and likewise the right of stoppage in transitu. But an order for delivery of the goods at a particular warehouse or point within the original destination cannot ordinarily be considered a direction to start the goods for another destination. There is also a distinction between directions as to the carriage for part of the distance the goods are to be taken, with delayed directions as to the carriage for the balance of the way, and the impressing upon the goods of orders for a new motion and another destination. It is the original destination, as contemplated by the buyer, which is to be taken into consideration. And delivery to another agent in the course of the transit, merely to perform some act in reference to forwarding the goods, will not affect a vendor's right of stoppage. The general rule is that, if in the hands of the carrier

or middleman, they require new orders to put them again in motion, and give them another substantive destination; if, without new orders, they must continue stationary, then the delivery is complete, and the lien has expired.

In this case certain wool had been sold at Glendive, Mont., and shipped by rail, consigned to the purchasers, at Duluth, Minn. It arrived in the Duluth freight yard a few days later, and on the following morning the freight clerk at the railroad office telephoned the consignees, at West Superior, of its arrival, in addition to other carloads already there, and asked, "must all be sent over to West Superior?" The reply was, "No, keep it all at Duluth." Five days after its arrival, about noon, the freight agent in charge received a letter from the consignees directing that all wool on the tracks at Duluth consigned to them be delivered to a certain Duluth firm. There were no facilities for unloading the wool while the car containing the same remained in the freight yard of the transporting railway company. That evening, while the car was in such yard, the wool was seized by the sheriff by virtue of a writ of attachment duly issued in an action brought against the consignees. His deputy remained with the car, and the next day it was transferred to the tracks of another railway company, and hauled to a warehouse, where the car was opened, and its contents placed in the warehouse by the sheriff, who paid the freight, the warehousemen receipting to him for the wool. After the wool had been so attached and stored, the vendor learned of the insolvency of the consignees, and sought to exercise the right of stoppage in transitu, and the court holds that his right had not yet expired.

THE EVIL OF WAREHOUSE ACCUMULATIONS OF WHEAT.

Reference is made to the relatively high prices for spot or cash wheat here and at other primary markets as against "futures." The natural inference is that this demand for cash wheat is an evidence of inherent strength, and that "futures" were the depressing influences, whereas it is just the reverse. The speculative holdings of "futures" are the real basis and foundation of values. If this cash demand was for actual consumption or export, the conditions would soon give evidence by advancing prices and activity.

Unfortunately, however, this demand for spot grain is largely for storage requirements and profits from carrying charges, and this storage system, instead of a benefit as originally intended, is becoming detrimental to the grain business, and, carried to the extremes as it is now, a curse to the country, when grain is held year after year in vast warehouses and enormous quantities at the great speculative centers and sold again for the premiums (carrying charges) attached to all future deliveries. The grain is withheld not only from its natural export outflow, but such large accumulations require constant handling to keep it in condition and become one of the most depressing factors.

This is the situation to day. The trade are suspicious, and many well informed are outspoken about the questionable condition of some of the grain and which is sold at a less price on account of this condition, but nevertheless carries with it a certificate of grade to which it is not entitled. In the meantime, other countries without this obstructive storage system in force replace American wheat in the world's markets, or force it to an unfair price level.—*Evening Post, New York*.

PERSONAL

R. D. Mundell, grain dealer of Fredonia, Kan., has removed to Kansas City.

Thomas Neill, grain dealer at Lyndon, Kan., was one of the earliest settlers in Osage county.

John R. Howell, a popular young grain merchant at Burrowsville, Ill., was recently married to Miss Grace Toner.

Edward Fintel of the firm of Fintel Bros., grain dealers of Genesee and North Prairie, Wis., who has been on a trip South for his health, has resumed business at North Prairie.

Mr. Simmons, grain buyer for the Kansas City Grain Company at Bell, Iowa, was recently held up and robbed of several hundred dollars while on his way to the bank. He means to bring the robbers to justice if possible, and has offered a reward for their capture.

The spirit of reform has been groping around in Pittsburgh and has succeeded in frightening the life out of the bucket shops.

LATE PATENTS

Issued on October 16, 1894.

GAS ENGINE.—Henry Voll, Springfield, Ohio, assignor to John Foos, same place. No. 527,635. Serial No. 499,715. Filed Feb. 10, 1894.

Issued on October 23, 1894.

GAS ENGINE.—Frank S. Mead, Montreal, Que. No. 528,006. Serial No. 492,856. Filed Dec. 5, 1893.

GAS, OIL OR SIMILAR MOTOR ENGINE.—Henry H. Andrew and Alfred R. Bellamy, Reddish, near Stockport, England. No. 528,063. Serial No. 503,506. Filed March 13, 1894. Patented in England Nov. 17, 1894, No. 20,802.

FEED MILL.—Nelson P. Bowsher, South Bend, Ind. No. 528,070. Serial No. 502,415. Filed March 5, 1894.

BALING PRESS.—James Fathin, Aspen, Colo., assignor of three-fourths to Jacob Schoelkopf and Henry W. Stormer, same place. No. 528,085. Serial No. 498,579. Filed Jan. 31, 1894.

GAS ENGINE.—Henry B. Migliavacca, Napa, Cal., assignor of one-tenth to Siro Migliavacca, same place. No. 528,105. Serial No. 505,269. Filed March 27, 1894.

GAS OR OIL MOTOR ENGINE.—Hermann Schumm, Cologne-Deutz, Germany, assignor to the Gas-Motoren-Fabrik-Deutz, same place. No. 528,115. Serial No. 501,026. Filed Feb. 21, 1894. Patented in Switzerland Jan. 3, 1894, No. 7,730; in Belgium Jan. 5, 1894, No. 107,980; in Italy Jan. 30, 1894, LXIX, 396.

AUTOMATIC DUMP FOR UNLOADING CARS.—Cicero D. Matheny, Seattle, Wash. No. 527,868. Serial No. 483,548. Filed Aug. 19, 1893.

PEA SHELLER.—John H. Empson, Longmont, Colo. No. 527,954. Serial No. 483,436. Filed Aug. 18, 1893.

PEA SHELLING MACHINE.—John H. Empson, Longmont, Colo. No. 527,955. Serial No. 484,769. Filed Sept. 4, 1893.

PEA SHELLING MACHINE.—John H. Empson and Peter McDonald, Longmont, Colo. No. 527,956. Serial No. 486,313. Filed Sept. 23, 1893.

Issued on October 30, 1894.

CAR MOVER.—August Kuebler, Sandusky, Ohio. No. 528,171. Serial No. 490,947. Filed Nov. 14, 1893.

GRAIN ELEVATOR.—Frank Kaucher, St. Joseph, Mo. No. 528,230. Serial No. 495,554. Filed Jan. 3, 1894.

GRAIN WEIGHING, REGISTERING AND DISCHARGING MACHINE.—Lewis P. Summers, Kansas City, assignor of one-tenth to Willie S. Mead, Sheffield, Mo. No. 528,403. Serial No. 490,951. Filed Nov. 14, 1893.

GRAIN SCOURING MACHINE.—Rosia W. Welch, Baltimore, Md., assignor to Joseph S. Taylor, same place. No. 528,405. Serial No. 496,831. Filed Jan. 13, 1894.

METHOD OF CONVEYING MATERIALS.—Frederic E. Duckham, London, England. No. 528,417. Serial No. 498,482. Filed Jan. 30, 1894.

GRAIN CONVEYOR.—Frederic E. Duckham, London, England. No. 528,418. Serial No. 498,483. Filed Jan. 30, 1894.

PNEUMATIC GRAIN CONVEYOR.—Frederic E. Duckham, London, England. No. 528,419. Serial No. 498,484. Filed Jan. 30, 1894.

GAS ENGINE.—James Patterson and William Patterson, Stockton, Cal. No. 528,489. Serial No. 514,547. Filed June 14, 1894.

Issued on November 6, 1894.

MACHINE FOR HULLING, SCOURING AND CLEANING COFFEE.—David B. Fraser, New York, N. Y. No. 528,595. Serial No. 495,639. Filed Jan. 4, 1894.

HAY PRESS.—John F. Adams, Aledo, Ill. No. 528,735. Serial No. 488,998. Filed Oct. 24, 1893.

A Chicago elevator man defends himself for not selling his wheat thus: "We have our house full. Most of the demand for red winter of late has not been for shipment, but mainly to fill up a railroad elevator at Erie to make storage. Why should we sell our wheat to help them make storage?"

From October, 1893, to June, 1894, there was exported from the port of Dundee, Scotland, to the United States 31,745 tons of potatoes, valued at \$544,268. The tariff was then 25 cents a bushel and has been reduced to 15 cents. It is said that this will not affect the shipments so much as a short crop and high prices in this country and an overproduction in Scotland. As there is a considerable decrease in the Dundee district crops, it is not thought that America will import many from that port.

CROP CONDITIONS.

NEW YORK.—Livingston county farmers will decrease their wheat acreage and sow rye this year.

NEBRASKA, McCOOL JUNCTION, YORK Co., October 29.—Fall wheat is looking well now, notwithstanding the dry weather we have had. S. S. KNOX.

TEXAS, DALLAS, DALLAS Co., November 6.—Wheat is getting scarce in Texas, and very little is yet sown. The prospects for next year are anything but good. E. B. KRONE.

KANSAS, ABILENE, DICKINSON Co., November 5.—There is plenty of wheat in this part of the state. Fall sown wheat looks splendid and prospects for next year are good. ABEL GIDEON.

OHIO, SPRINGFIELD, CLARKE Co.—Farmers are through seeding, and the wheat is up nicely. It needs rain to give it a good start for winter. Corn has yielded much better than we anticipated during August. Wheat receipts are quite moderate, as many of the farmers are holding for higher prices and some is being fed to hogs. WARDER & BARNETT.

CALIFORNIA, STOCKTON, November 3.—Grain dealers and warehousemen report that there is much activity in the sale of seed wheat and barley and feed. The farmers are preparing to put in their crops, and it seems from the orders given and the statements of ranchers as to the amount of land they intend to sow, that the acreage of wheat next year will be nearly as large as it has been in former years.

OATS IN TEXAS.—After a very close and careful investigation we find the stocks of oats in Texas and adjacent points in the Indian Territory, in hands of all dealers, 1,943,000 bushels, and in hands of farmers (a liberal estimate) 1,000,000 bushels, or a total of 2,942,000 bushels. Owing to the extreme low prices prevailing for cotton and wheat, the increase in acreage of oats will be very large, and on this account the entire amount held by farmers will be required for seed purposes.

KANSAS, WINFIELD, COWLEY Co., November 1.—The farmers of Cowley county are having to pasture their wheat in order to keep it from growing too rank and jointing. The wheat was never in a more advanced growth in the history of the county, and unless it is pastured heavily or cold weather sets in, it will joint and the crop will be ruined. It is free from fly or bug, but the fine weather is making it grow very rank. The acreage is the largest sown in many years, notwithstanding the low price.

THE PEANUT CROP.—Peanuts, which formerly came almost wholly from Africa, are now nearly all produced in Virginia. They begin to come in about November 1, and receipts continue throughout the year, large stocks being held in Virginia storehouses annually. The average yearly supply ranges from 85,000 to 90,000 sacks of 100 pounds each, or from 8,500,000 to 9,000,000 pounds. The opening price is usually about \$4.25 a sack and the closing price about \$3 a sack. On account of the oily nature of raw peanuts, they may be held in store for a full year without deteriorating more than about 3 per cent. in quality.

TENNESSEE, WINCHESTER, FRANKLIN Co., November 12.—Wheat in this section is late in being sown on account of the dry weather. A great many farmers have sown their crops the second time, the weather being so dry at the first sowing, and the dry weather continuing the wheat did not come up to a good stand. Some farmers say that if they do not get rain soon so that they can prepare the ground for wheat they cannot put a crop in this year. The last crop of wheat was small, but good in quality. Wheat sells at 45@50 cents per bushel, and there is a general cry with the farmers of cheap wheat and hard times. ERNEST McDOWELL.

MICHIGAN.—The Michigan crop report for November, issued November 8, says that the area seeded to wheat in this state is reported at 86 per cent. of the area seeded one year ago. In condition, growing wheat is reported at 91 per cent. in the southern counties, 98 in the central and 100 in the northern, comparison being with average years. The average for the state is 94. The average condition is higher in all sections of the state than one year ago. The total number of bushels of wheat reported marketed by farmers since the October report was published is 1,033,202 bushels less than marketed in the same months last year. Corn is estimated to yield in the southern counties and state an average of 40 bushels of ears per acre. The area of clover seed harvested in the state is about 55 per cent. of the area in average years. The yield is estimated at 1.31 bushels per acre. Compared with a full average crop, potatoes are estimated at 55 per cent. in the southern counties; 54 per cent. in the central and 47 per cent. in the northern counties, the average for the state being 52 per cent. Livestock is in fairly good condition. The following are from the farm statistics for 1893-94: Acres of wheat, 1893, 1,533,071; bushels, 24,432,201; yield per acre, 15.94 bushels. Acres of wheat in May, 1894, 1,287,865; acres of corn in 1893, 797,797; bushels of ears, 37,761,594; average per acre, 47.33 bushels.

Acres of oats in 1893, 843,406; bushels, 22,323,976; average per acre, 26.47 bushels. Acres of cloverseed raised in 1893, 174,949; bushels, 170,792. Acres of potatoes in 1893, 172,225; bushels, 13,589,202. Acres of hay in 1893, 1,762,768; tons, 2,282,538.

IOWA, MERIDEN, CHEROKEE Co., November 9.—I have been a dealer in grain here eleven years and am well acquainted, and think I have got the crop straight, for I also farm 300 acres of land. Our oats were a fair crop, but our acreage was one-third less than last year in this county. Our wheat was a full crop, with a falling off in acreage of about one-fifth. Our hay crop was a failure. Our corn crop acreage was one-third more than last year, with a crop that will not average nine bushels per acre the county over. Wheat and corn together may feed our stock through to grass. There will not be a single bushel of wheat or corn shipped out of the county until another crop is raised. Wheat is much better feed for hogs than corn, and every bushel that is offered is looked after to feed hogs, while cattle feeders are looking after all the corn and paying 40 to 45 cents for it as fast as they can find it. This section is shipping all the oats it gets to Nebraska, as we can get 2 to 3 cents per bushel more than by shipping East. Farmers are here every day from Nebraska looking after wheat, oats and corn by car lots. D. W. CHRISTIE.

FLAXSEED.—The flax crop of 1894 has not been in the main a profitable one to growers. The yield of seed will prove under rather than over the average for the last few years, and is approximately 8,000,000 bushels, although final returns from threshers may make it necessary to modify this figure slightly. In many instances farmers show a decided disposition to raise less another year and the present outlook is for a decreased acreage in 1895. The yield per acre was decidedly uneven, certain counties in Minnesota producing as high as 20 bushels, but this was an abnormal amount, the Northwest generally averaging much less than half that. Many townships in the older sections produced no better than five to six bushels per acre, and in not a few instances the crop in whole counties proved a complete failure. Minnesota has raised a good crop of flax. The acreage in many counties showed an increase compared with the previous year of 5 to 25 per cent. and in some instances much more than that. The yield per acre and quality were both fairly satisfactory, and this, taken with the present high prices, has encouraged the farmers, who will generally put in a larger acreage next year. South Dakota growers have had a poor year. Northern Iowa secured a fairly good crop on an acreage of as much as that of 1893, although the yield was in many instances smaller. A large part of the crop left farmers' hands before the first of November. There is a general disposition to put in a smaller acreage next year. Nebraska suffered by reason of the drought, and farmers say there is more money in corn. The Kansas crop was a fair one and secured in good condition. It has been marketed freely, the high prices encouraging this. While in a large number of cases the crop has not proved a profitable one, the sharp advance since August has done much to help the farmers out.—*Orange Judd Farmer*.

RECEIVERS DECLARE AGAINST TRACK BUYING AND REBATES.

At a recent meeting of the Minneapolis Grain Receivers' Association the questions of buying on track in the country by commission firms and of some elevator companies soliciting business from Eastern millers was discussed. Members of the grain trade at Minneapolis have been kicking against these practices ever since the new crop of wheat began to move in September, and the matter was taken in hand by the Grain Receivers' Association for an amicable settlement.

The chief object of the association, as declared at this meeting, is to prevent cutting of commissions by bonus, rebate or any other illegitimate method by which one grain man may take an advantage over another. Almost all present agreed in this, and a circular protesting against the practice of buying wheat on track was drawn up. Seventy-three members signed the circular, agreeing to abandon track buying and pledging themselves to refuse to permit their agents to buy outside of the elevators or to interfere with track shipments. This circular has been sent to grain buyers throughout the Northwest.

Another common annoyance that was knocked in the head was the practice of furnishing country buyers with market telegrams free of charge. These C. N. D., or Commercial News Department dispatches, consisted of quotations of the markets, and four of them per day cost \$10 per month—a nice thing for the country merchant, but an unnecessary expense for the receivers. Henceforth these quotations will only be supplied at regular charges.

All legitimate grain men believe that reform along these lines will result in much good to the trade in general, and it is to be hoped that organizations of other cities will look to their interests in the same way.

Does Europe still refuse to acknowledge the corn, knowing its a-maizing qualities?



INVESTIGATE RECEIVERS.

Why don't shippers investigate more thoroughly the firms they consign to? We believe that shippers do investigate closer than ever before, and we believe they will continue to do so more and more each year. Too many pay no attention to this matter and hence often find themselves filched of money and are ready to kick at the whole lot of merchants.—*Hay-Men's Gazette*.

BUYERS PAY FOR QUALITY, NOT NAME.

The interest of the farmers in the questions of either mixing wheat or the quality of the grades, is infinitesimal in any direction. The farmer who produces a fine quality of wheat, will get paid for it in proportion to its intrinsic value, no matter whether it may be called No. 1 hard or No. 2 hard, and without any consideration as to whether it is to be mixed or not.—*Commercial, Winnipeg*.

FEEDING WHEAT.

So far the consumption by animals, although attracting great attention, has had little effect upon values, but if the position has any foundation in fact values will be greatly affected by it before the end of the crop season. The consumption by animals is one of those silent factors that draws directly from farm bins with none of the noise that accompanies marketing through the usual channels. It neither adds to the visible supplies nor shows in terminal receipts, but noiselessly drops out of existence.—*Market Record*.

SHOULD ADOPT THE CENTAL.

An inquiry is occasionally made as to the reason for using the bushel measure for grain in this state, when the cental is so much easier for dealers. Chicago and the Eastern markets sell wheat by the bushel, New Mexico by the fanega, or 150 pounds, and California by the cental. Inquiries in this market from east of the mountain grain men are always in the bushel term. Wheat shippers buy by the bushel and ship by the cental. It would seem to be good business policy, inasmuch as San Francisco uses the cental, for it to be adopted generally all along the coast.—*Trade Register, Seattle*.

THE ERIE CANAL MUST BE IMPROVED.

If the Erie Canal is to become once more as important to the material interests of the state as it used to be before the railroads had absorbed quite half the transportation business formerly carried by it, it must be widened and deepened and its banks must be strengthened in order that greater speed may be attained by the boats passing through it. The Erie Canal has reduced freight charges, has been the wholesome rival of the railroads and the most prolific source of New York City's prosperity. The usefulness of the canal might be again as great and beneficial as it was if it were enlarged and improved.—*New York World*.

PLUGGING.

A local receiver had considerable to say the other day about the "plugging" of consignments by unscrupulous shippers. The advantages of being careful to report correctly the weight and quality of each car of grain or hay shipped and to consign it to a responsible commission house should be the shipper's constant aim. Plugging loads and haggling over a commission will ever prove unprofitable. One plugged load will cast a suspicion about every car consigned by that shipper that 100 cars cannot remove, and the knowledge that the shipper has tried to deceive is not likely to encourage a commission man to sit up nights to devise ways to dispose of the shipper's goods at a good figure.—*Hay There*.

FREIGHT TARIFF REGULATORS.

With all the developments of the last fifty or sixty years in rail transportation, and the more recent lowering of rates, railroads have not yet entirely superseded water transportation, and probably never will. Even under the most favorable circumstances, where rail and water are in direct competition the latter has a certain advantage, and though the railroads may carry the bulk of the traffic the waterway occupies an invaluable place as a regulator of tariffs. It may be news to many, but it is nevertheless a fact, that more freight goes from Chicago to the East by lake than by the seven trunk lines combined; and this notwithstanding the fact that the season of navigation is confined to seven months in the year.—*The Timberman*.

The *Milling World* says that the Department of Agriculture should turn its incompetents loose on the "mummy wheat" crop.



Tickets of membership to the New York Produce Exchange were recently held at \$450.

The Montreal Corn Exchange is considering the question of raising the standard of No. 1 Manitoba wheat at Port Arthur.

We are indebted to the Baltimore Board of Trade for a copy of the annual report of that association for the year ending September 30.

The Minneapolis Chamber of Commerce has decided to make the official carload of flax 500 bushels. There was no rule applying to this matter and the new rule will prevent misunderstandings.

The Merchants' Exchange of St. Louis has adopted the following rule: "On and after June 1, 1895, on sales of No. 2 Red winter wheat for future delivery, the tender of No. 2 Hard winter wheat, in whole or in part, shall be deemed sufficient."

The Merchants' Exchange of St. Louis, Mo., is still in controversy with the railroad and warehouse commission over what the Exchange claims are excessive charges for inspection. Arguments are liberally interchanged, but no settlement has yet been arrived at.

The clearing house in connection with the Baltimore Corn and Flour Exchange has adopted a rule charging a fee of \$1 for each committee man who should hereafter sit in a case, the fee to be collected in the shape of costs, and to be levied by the committee. This was done in order to prevent the filing of so many trifling complaints with the various committees.

When Kansas City markets are dull the grain men go on a lark—and frequent practice has taught them how. On the evening of October 26 fifty members of the Board of Trade, survivors of the recent carnival festivities, solemnly marched into the Grand Opera House and seated themselves near the stage. Certain loud peculiarities of dress made them noticeable.

After discussing at length alleged discrimination against Milwaukee in grain rates from the north, the Milwaukee Chamber of Commerce adopted resolutions directing the board of directors to make complaint to the Interstate Commerce Commission. They maintain that rates should be so adjusted that Milwaukee would be placed on an equal footing with Duluth and Minneapolis.

The Minneapolis Chamber of Commerce at a recent meeting elected a new set of officers, J. H. Martin succeeding Mr. Pillsbury in the presidency. Attention was called to the financial standing of the Chamber of Commerce. There was a cash surplus of \$20,000 on hand; the receipts for the year had been \$33,160, the disbursements \$29,770. Many improvements to the Chamber's building are contemplated.

A member of the New York Produce Exchange recently brought forth something which sounded like this:

Whence arises that commotion, like the murmur of the ocean,
Where a broker waxing frantic, most vociferously hollers?
Has some fellow whom he trusted with no margin gone and busted?

No, but wheat declined a fraction, and the scalper's made \$5.

A treasured souvenir of the war times, owned by Capt. John O. Foering, chief grain inspector of Philadelphia, was exhibited to the members of the Commercial Exchange recently. It is a presidential ballot of 1864, which had evidently fallen from the hand of some Confederate voter and was rescued from the wayside mud by Capt. Foering on his way with Sherman's army in the memorable march through Georgia from Atlanta to the sea. It contains the names of Jefferson Davis for president, the Hon. A. H. Stephens for vice-president, a list of twelve electors, and the name of Thomas P. Safford for Congress.

There are more complaints against the elevator people for violation of their agreements with the Chicago Board of Trade regarding shipments of contract grades of grain. W. H. Harper is accused of shipping contract oats. President Raymond offered to give the complaining shipper an opportunity to put his grievances in tangible form by calling a meeting of the members of the committee on violation of rules. The shipper, however, said that he would be unable to meet the committee and the matter has gone over. It will be a disappointment to the trade if the question at issue is not brought up for final settlement.

The St. Louis, Mo., Merchants' Exchange has adopted the following rule to govern contracts for future delivery: "On all contracts for grain for future delivery, and on sales for cash, the tender of a higher grade of the same color, in whole or in part, than the one contracted for, shall be deemed sufficient. On sales of No. 2 corn for future delivery, the tender of No. 2 White corn or No. 2 Yellow corn, in whole or in part, shall be deemed sufficient, and on sales of No. 2 oats for future delivery, the tender of No. 2 oats

'color' or No. 2 White oats, in whole or in part, shall be deemed sufficient. On and after June 1, 1895, on sales of No. 2 Red winter wheat for future delivery, the tender of No. 2 Hard winter wheat, in whole or in part, shall be deemed sufficient."

S. P. Jones, state grain inspector of Kansas, has brought suit against the Kansas City, Kan., Board of Trade for \$240, an amount representing the pro rata share of the Kansas City Board of Trade toward Inspector Jones' salary for July, August and September. Under the grain inspection law, enacted by the last Kansas legislature, the grain inspector's salary is to be paid by fees assessed against the boards under which the grain is inspected. There are six Boards of Trade in the state, but the Kansas City, Kan., Board of Trade opposed this law and has refused to pay the stipend. Hence the suit under which Inspector Jones attached and garnisheed a number of grain merchants in this city who owe membership dues and inspection fees to the Kansas City, Kan., Board of Trade.

The Baltimore Corn and Flour Exchange has recently made some important changes in its rules. Cloverseed has been brought under the commission rules, and a commission of 1½ per cent. will hereafter be charged for handling it. This action was taken because of complaints that have been made of cuts in commissions to secure trade, in direct violation of unwritten agreements. It is said that the cutting became so bad that there was no margin of profits and the Exchange had to be appealed to. The Exchange has also decided to amend the rules of the new clearing house by requiring slips confirming all contracts to be in the clearing house not later than ten o'clock on the day succeeding that on which the contract was made. This amendment was simply to prevent a technicality, the original rule requiring such slip or certificate to be sent to the clearing house by the hour stated above.

The Chicago Board of Trade has adopted an amendment to its rules to the effect that "When a member acting as a commission merchant shall have made a purchase or sale for future delivery of any commodity dealt in on the exchange, he shall upon the day of such purchase or sale notify his principal in writing of such purchase or sale and the name of the individual, firm or corporation, as the case may be, of whom such purchase or to whom such sale was made; a non-compliance with the requirements of this section shall be deemed uncommercial conduct and punishable by suspension from the privileges of this association at the discretion of the directors." Commenting on this move a prominent broker said: "It is a sorry commentary on the Board of Trade when it has to make a rule to stop its own members from doing a bucket shop business, when that same business is the bane of every commission merchant in the trade."

IMPORTS AND EXPORTS OF FOREIGN BREADSTUFFS.

The total value of breadstuffs imported during September, according to the last report of the Bureau of Statistics, was \$162,782, against an amount valued at \$51,555 imported in September preceding; and during the nine months ending with September breadstuffs valued at \$1,004,904 were imported, against an amount valued at \$1,190,608 imported during the corresponding months preceding.

Barley aggregating 321,570 bushels, valued at \$146,538, was imported during the nine months ending with September, against 780,785 bushels, valued at \$354,769, imported during the corresponding months of 1893. Corn aggregating 2,026 bushels, valued at \$1,117, was imported during the nine months ending with September, against 1,722 bushels, valued at \$1,155, imported during the corresponding months of 1893.

Oats amounting to 24,262 bushels, valued at \$8,294, was imported during the nine months ending with September, against 17,088 bushels, valued at \$7,505, imported during the corresponding months of 1893. We imported 95 bushels of rye during the nine months ending with September, against 8,505 bushels, valued at \$6,801, imported during the corresponding months of 1893.

Wheat aggregating 728,160 bushels, valued at \$433,554, was imported during the nine months ending with September, against 302,920 bushels, valued at \$232,553, imported during the corresponding months of 1893.

Of imported breadstuffs an amount valued at \$19,116 was exported during September, against an amount valued at \$6 exported in September preceding; and during the nine months ending with September breadstuffs valued at \$194,204, were exported, against an amount valued at \$169,556, exported during the corresponding months of the year preceding. Imported barley aggregating 19,305 bushels, valued at \$9,672, was exported during the nine months ending with September, against 28,983 bushels, valued at \$14,493, exported during the corresponding months of the year preceding. Imported wheat amounting to 289,986 bushels, valued at \$166,633, was exported during the nine months ending with September, against 197,177 bushels, valued at \$140,654, exported during the corresponding months of the year preceding.

The word "new" in the inspection of wheat of the crop of 1894 at Chicago was dropped November 1.

ITEMS FROM ABROAD

Algeria exports considerable quantities of barley to France, where it is used for horse feeding.

The River Plate Granaries, Limited, has been organized in London, England, with a capital of £80,000.

India has exported only 8,200,000 bushels of wheat between April 1 and October 10, a considerable falling off from previous years.

The barley crop of France is estimated at 54,813,396 bushels, against 33,662,747 bushels in 1893. The oat crop is estimated at 270,337,323 bushels.

A book has been issued containing papers relating to the introduction into India of the system of grain elevators in operation in America.

Portugal's wheat crops for the last three seasons are as follows: 1894, 1,250,000 quarters (of 480 pounds each); 1893, 750,000 quarters; 1892, 800,000 quarters.

Sweden's wheat crop is equal in yield to that of last year, while the crops of rye and potatoes are estimated to be 20 per cent. worse, and oats, rye and hay 20 per cent. better.

Spain imports considerable grain from Black Sea districts, also getting considerable quantities of wheat from Argentina. Barcelona is a large importer of Danubian grain.

A writer in the *Review of the River Plate* has estimated that an Italian colonist raising an average crop of 1,800 quintals of wheat in Argentina may realize a net profit of \$3,290 on an expenditure of \$4,360.

Regarding the importation of Australian hay into Great Britain it is said that although the quality is below that of the home product for feeding purposes, its cheapness will create a demand that will make a market for it there.

Argentina farmers are said to be able to raise wheat at a profit at 36 cents per bushel at the railway station. Dalrymple, the North Dakota farmer, gave out some time ago that the cost of raising wheat on his big farm was 37 cents per bushel.

An official forecast of the rye crop in Prussia places the yield at 27,000,000 quarters (of 480 pounds each), against 29,500,000 quarters in 1893. The average of the crop throughout Europe is good, though there is a falling off from the average condition of the three previous years.

Fowler Bros., Limited, of London, England, contemplate the construction of large warehouses and grain elevators in Argentina. They are seeking concession of about 18,000 square meters of land in the South Basin. They propose a tariff at these houses of 15 cents per 100 kilos for receiving, storing and loading grain.

Uruguay exported in 1890 18,000 tons of wheat, 500 tons of flour and 4,000 tons of maize, and during the three years of 1890-93 the total exportation amounted to 24,653 tons of wheat, 12,703 tons of flour, and 7,195 tons of maize. There has been a marked increase for the first half of 1894, 81,000 tons of wheat, 21,000 tons of flour and 8,000 tons of maize having been exported.

Denmark's crops of this year as compared with those of 1893 are thus estimated, in quarters of 480 pounds each: Wheat 570,000 quarters, against 560,000 quarters in 1893; rye 2,350,000 quarters, against 2,320,000 quarters; oats 4,800,000 quarters, against 3,250,000 quarters, and barley 3,300,000 quarters, against 2,200,000 quarters in 1893.

The question of bag or bulk shipment of Argentina wheat is being discussed in England. At present bag shipment prevails, but if the underwriters would favor shipment in bulk it would be an improvement. It would probably be more economical, allow of better inspection and sampling, and a more thorough mixing of grain. A number favor shipping half in bulk and half in bags.

The department of agriculture has estimated that Europe will need 116,000,000 bushels of this crop of American wheat. It is said that only a small part of Great Britain's crop is fit for milling purposes, while France will have to import but little. The wheat crop of Roumania is the smallest for years, while in Germany the crop shows a falling off in quantity and quality.

Reports from Argentina are to the effect that recent cold weather has retarded the growth of the crops and that the chances of the farmer making anything out of his harvest are not great. With bountiful supplies in Europe and the United States, and a falling premium on gold, the outlook for him is not rosy, and it is said that the locusts may be even doing him a favor if they eat off the crop, which it will not pay to cut and thresh.

The earnings of the Minnesota Grain Inspection Department for September amounted to \$21,504.56.

WATERWAYS

Work on the Hennepin Canal in Illinois is going on in a businesslike way. The estimated total cost of the canal is \$6,925,960.

The steamer John W. Moore took out 95,000 bushels of oats and barley from Green Bay, Wis., the largest cargo ever taken from that port.

The Suez Canal is 99 miles long and saves 4,000 miles between England and India, which some of our canal enthusiasts may accept as an object lesson.

Apropos the waterway from the great lakes to the Atlantic Ocean, it is a significant fact that about half the railways of the entire country are tributary to the lake region.

At a meeting of the Ohio State Board of Commissioners held in Columbus November 14 the subject of the "reciprocal interests of shippers and carriers" was discussed.

During the first 26 days in October 24 vessels loaded with grain cleared from the port of San Francisco, and it is expected that a cargo will be cleared for every day in November.

At a recent meeting of the Chicago Board of Trade resolutions were adopted favoring the waterways convention's project of a St. Lawrence River route to the Atlantic with a depth of 21 feet.

Up to midnight on October 24, 105 boats of generally large tonnage passed through the lock at the St. Mary's Falls Canal, exceeding the highest number previously attained by seven vessels.

On November 1 marine insurance on the lakes expired and the rates are now almost prohibitory. Many "wild" vessels will be run for a time, especially line boats, many of which carry no insurance at any time.

The ship Cadillac took a cargo of grain from Duluth to Buffalo recently, and when reaching her destination a shortage of 1,452 bushels was found. The error is claimed to have been made in weighing at Duluth.

It is reported at Buffalo that vessel owners are preparing to lay up their boats for the winter on their arrival at Chicago, claiming that they cannot afford to make the voyage down the lakes again at the present low grain rates.

The Illinois and Michigan Canal was officially closed for navigation from Bridgeport to La Salle November 15. If the weather permits boats will be allowed to run between Joliet and Bridgeport at owner's risk of being frozen in.

In compliance with the terms of the last river and harbor improvement act a board has been appointed at Baltimore, Md., to determine on the route for a waterway to connect Chesapeake Bay and Delaware River. The report of the board will be submitted to Congress at its next session.

The utility of the proposed canal between Lake Winnipeg and Hudson Bay is still being discussed. The government should determine the length of time such a route would be navigable, and its commercial value can then be gauged. Lake Winnipeg to Lake Superior would be a much cheaper route.

Owing to the high elevator charges at Buffalo, Oswego is again coming to the front as a grain receiving port, and with cheap canal rates to New York, as well as moderate elevator charges, it is thought that considerable grain will be diverted this fall to the old-time grain route via Oswego.—*Marine Record*.

Regarding a vessel holding a cargo for demurrage charges Porter, in his "Law of Bills of Lading," says that when the bill of lading contains no stipulation as to demurrage, the common law courts have usually held the consignee or his assignee is not liable for demurrage, although they have accepted the goods.

The amendment to the constitution of New York permitting the improvement of the canals was adopted at the recent election. This was wisely done. The New York canals have paid the state over \$15,000,000 more than their entire cost in tolls. It is stated that with the deepening of the Erie Canal to nine feet, nearly one-third of present transportation rates will be saved.

The scheme to construct a canal from Georgian Bay to Lake Ontario (a scheme that was agitated forty years ago) was recently presented to the Chicago Board of Trade. The objections to such a canal are too numerous to mention, and very much overlie the advantages that might accrue. Too many hungry canal schemes already exist in the United States, awaiting someone to invest money.

The Cincinnati Board of Trade has adopted resolutions favoring the establishing of a ship canal between Cincinnati and Toledo, for which an appropriation of \$50,000 would be necessary for a survey. Toledo, to say nothing of other Lake Erie ports, will not be benefited by such a waterway. Lake Erie is already

shallow and a further drainage by a big canal would have a noticeable effect upon its harbors.

The project for a canal across the southern portion of Michigan, giving a straight connection between Lakes Michigan and Erie, seems to be growing in favor, notwithstanding the many palpable drawbacks such a canal would have. Experts have estimated the cost of such a canal as "about" \$12,000,000, and an engineer has stated that no topographical difficulties exist, the land being low and easily excavated.

According to the *Canal Defender*, there are 47,000,000 bushels of grain in store at lake ports, and the canal boat blockade at Buffalo is a serious matter to vessel owners. But there is little foreign demand for grain and there are now 12,000,000 bushels in store at New York. Elevator owners and canal boat men will soon have to make mutual concessions to start grain moving or "the jig is up with every party connected with canal transportation in the year 1894."

The elevator pool at Buffalo is making a new move. Heretofore it has been the custom for certain elevators to obtain cargoes for canal shipment by paying rebates of about 50 cents per 1,000 bushels. The elevators which did not hold out the inducement of a rebate handled little grain, and to equalize matters the pool has appointed Leonard Dodge, manager of the Frontier Elevator, to distribute cargoes arriving. The greatest objection to this will, of course, come from shippers, for rebates will be no more.

There is a movement among grain shippers at Baltimore, Md., looking toward a rearrangement of regulations pertaining to the loading and demurrage of vessels now governing charter parties. A schedule based on a discharge of 1,000 quarters of grain a day has been in operation for years. When adopted this was similar to the schedule in force in London, but the latter has since been changed to a basis of a discharge of 1,500 quarters of grain per day. Baltimore shippers urge that they are entitled to a like saving in time.

At a meeting of the Toronto, Canada, Board of Trade a movement was made toward adopting the resolutions of the recent deep waterways convention. This was immediately squelched with the argument that it would be unwise to aid in having the Welland Canal deepened only to have produce carried past Toronto. A resolution was adopted favoring a 14-foot channel from the lakes to the ocean via the St. Lawrence River route. The waterways convention favored a 21-foot channel. Cannot some genius present a plan to satisfy both parties?

France has spent over \$400,000,000 on waterways since 1814. The French rivers are navigable for an aggregate distance of 1,850 miles, and connect with 3,000 miles of canals, 2,000 miles of canalized rivers and 66 miles of ship canals, forming a network reaching to every point of the compass. Since the last war with Germany, in spite of its heavy taxation for other purposes, France has spent \$73,000,000 on its canal system. No tolls are charged except on a few old leased canals, and these will be made free as soon as possible. It is the belief of French economists that the national canal investment is worth to the country at least 5 per cent. a year, and it is certain the people would not part with them for any consideration.

The melancholy end that might overtake some of the wild canal projects that are set afloat in this country, should they get to a stage where dissolution were possible, is illustrated by the present condition of what is left of the Panama Canal. The wharves are falling into the water and acres of machinery are rusting to dissolution. On the isthmus are nearly 1,000 miles of steel track with locomotives and thousands of dump carts, now half hidden in the tropical growth. Seventy-six great steam shovels stand side by side in the excavation buried in the luxuriant vegetation, so that only the gaunt arms stand up above the green. While 200 locomotives have been housed, it is estimated that nine-tenths of the millions squandered on this prodigious enterprise is going to waste. Much of the excavated land has been washed back into its original place and the great scar on the face of the Panama Isthmus is rapidly fading from view. The work now going on toward completing the canal is said to be insignificant in comparison with the enterprise that marked its beginning.

At last a considerable quantity of Manitoba wheat has been booked for shipment via Montreal, and in consequence all the ocean freight has been secured up to the close of navigation. Although this is a large quantity at the close of the season, it will not begin to compare with the large shipments of Manitoba grain via Buffalo. Still we are thankful for this last good-sized jag.—*Bulletin, Montreal*. November 2.

The grain shipper's duty, according to the Minnesota Railroad and Warehouse Commissioners, is to fasten upon the door of every car loaded with grain a card bearing the number and initials of the car, with the date of the shipment and the actual weight of the grain. This will enable the weighman to locate the cause of the difference between his weights and the shipper's weights before the identity of the grain is lost, and to determine beyond a doubt the weight of the shipment. The practice is a good one and is of advantage to the shipper as well as the receiver.

VALUABLE BOOKS FOR GRAIN DEALERS.

The following standard works will be sent, postage paid, on receipt of prices given:

ROBINSON'S TELEGRAPH CIPHER.—The publishers have recently revised this excellent work, and we are now prepared to supply the trade. Cloth binding, \$1.50; leather.....\$2.00

WEIGH BOOKS.—Containing 125 perforated leaves with four weigh tickets and four stubs to each leaf, well printed upon good paper. The books are well bound. Copies will be mailed to any address for \$1.00

CLARK'S VEST-POCKET GRAIN TABLES.—A very useful and handy little book for grain buyers: to be used in reducing to bushels any quantity of grain or seeds up to 100,000 pounds. Size 2½ by 8½ inches, 16 pages. Leatherette.....75

KINGSLEY'S DIRECTORY is the only complete work containing the name and address of every firm engaged in the following lines of business: Milling, grain, flour and feed, hay and straw, butter and eggs, fruit and produce, malting, brewing, distilling and poultry. Over 500 pages, octavo, substantially bound in cloth. Indispensable to those who wish to reach the lines of business named above. Price.....\$3.50

POUNDS TO BUSHELS.—These tables which show the number of bushels in any quantity from 20,000 to 70,000 pounds were compiled for the Chicago Grain Inspection Department. They are well printed on good paper and conveniently arranged for quickly finding the number of bushels in a carload. Each book contains ten leaves and each leaf is indexed at margin and printed on one side only. Each book is neatly bound in cloth. They will save clerks much labor and prevent errors in reduction. Price for "OATS," \$1.00; "BARLEY," \$1.00; "CORN AND RYE," \$1.00. The set.....\$2.50

JENNING'S TELEGRAPH CIPHER AND DIRECTORY TO NEW ENGLAND TRADE.—A new guide to carload buyers of grain throughout New England. A list of those engaged in the grain, feed and flour trade. Western grain shippers and millers wishing to do business in this territory will find this directory invaluable. The telegraph cipher has met with favor and is highly recommended by users. In fact the code part of the book is considered by many shippers superior to any other in use. It is modern and practical, a great money saver and will prevent mistakes. Nicely bound in leather.....\$3.00

ADAMS' CABLE CODEX.—This code is compiled especially for sending cablegrams and is used extensively in this country and abroad. The seventh edition, which is about to go to press, will contain 160 pages of cipher words, conveniently arranged. The code contains sentences covering and referring to buying and selling, condition of market, sterling money, United States money, business, financial matters, letters of credit, drafts, standing of firms and many sentences used by travelers. The cost of the code is a mere nothing compared with the saving which can be made on one message. Price, postpaid.....\$0.55

DAVIS' GRAIN TABLES.—These tables give the value of any number of bushels of produce weighing 60 pounds to the bushel from 25 cents to \$1.25 per bushel, and the value of any produce weighing 32, 48 and 56 pounds to the bushel at 15 cents to \$1.50. The book also contains Davis' Dockage Table, which gives the amount to dock any load of wheat up to 600 bushels at 1½ to 5 pounds' dockage. The book contains 219 pages of tables, printed on good paper, with large type, and well bound in cloth. The book is a new publication, and the arrangement of the tables is much more convenient than in some of the old publications. Price.....\$1.25

ROPP'S COMMERCIAL CALCULATOR.—A small manual in compact form which contains a new system of useful and convenient commercial tables. Also a "Practical Arithmetic for Practical Purposes" in which is embodied the shortest and simplest rules and methods known. It includes in its contents a table giving the value of cattle, hogs, flour, etc., for any amount ranging from 3 to 20,000 pounds, and in price from \$2.50 to \$6.75 per 100 pounds. It contains a table which shows the equivalent of English market quotations from 1 to 100 shillings in U. S. money. It also shows the freight on grain per bushel from 1 to 50 cents per 100 pounds. The grain tables show the number of bushels and odd pounds in any quantity of any kind of grain from 10 pounds to 100,000 pounds. The hay, straw and coal tables show the value in tons of any amount ranging from 10 to 3,000 pounds at prices from 25 cents to \$18 per ton. The interest tables are very complete and give the interest for any amount for any time and for any rate per cent. ranging from 6 per cent. to 10. The millers' and farmers' exchange table gives the number of pounds of flour to be received from wheat ranging from 5 to 3,000 pounds and from 25 to 40 pounds to the bushel. Tables of money weights and measures are also included, and also the metric system. The book contains much other useful information. Price.....50

For any of the above, address

MITCHELL BROS. CO., 184 and 186 Dearborn street, Chicago, Ill.

Latest Decisions.

Insurance Policy Voided by Mortgage.

The Supreme Court of Minnesota has just decided that a policy of insurance on an elevator was rendered void by mortgaging same when the policy contained a printed condition voiding it in case of the property insured being personal property and being afterward incumbered with a chattel mortgage.

Ship Owner Liable for Damages Due to Delay.

It is the duty of a ship to complete a voyage for which she is chartered within a reasonable time, having due regard to the adventure of the shipper, that is, in such a time that the commercial speculation of the shipper may be successfully carried out; and for a willful breach of this duty the ship will be liable in damages, if it results in a frustration of the venture. —*Business Law Weekly*.

Sale—Contract—Price.

The Supreme Court of Georgia held, in the recent case of Decker et al. vs. Gwin vs. Franklin, that a contract for the sale of goods was not complete where there was an offer to buy at a given price, which was answered substantially in these terms: "Will accept Reasonable time for delivery. Please name limit," no limit being at any time named, so far as appeared.

The Shipper Need Not Be the Owner to Recover Overcharges.

The right to recover overcharges on freight frequently turns on the question of ownership. The shipper may, however, the Appellate Court of Indiana holds (Lake Erie, etc. vs. Condon, 38 N. E. 71), recover the overcharge when he contracts for the transportation and the consignee deducts the overcharge from the price of the goods shipped, whether he is technically the owner of the goods when they are overcharged or not.

Informal Legal Contracts to Furnish Cars.

A shipper of live stock told the agent of a railway company that he wanted cars to ship on a certain day. The agent replied, "All right," and made out an order for them. This being established the Appellate Court of Indiana holds (P., C., C. & St. L. Ry. vs. Racer, 38 N. E. 186), that there was here a valid contract which would bind the railway company to furnish the cars. When words of assets are relied upon, as showing the meeting of minds, it is of little consequence how informal they are.

When Freight Charges on Carloads Are Presumed to Be Payable.

Where commodities are shipped in full carloads, the freight is due, the Supreme Court of Georgia holds (Columbus Southern Ry. Co. vs. Woolfolk, 20 S. E. 119), in the absence of an express contract fixing a different time, when the cars reach the usual place of storing such cars in the city of destination, and the consignee is notified of their arrival and of the company's readiness to deliver. This is so although it may be necessary, before actual delivery can be made, to switch them out and place them upon particular tracks of the company, designated as "team tracks."

Transfer of Warehouse Receipts Passes Title.

In Bank of Newport vs. Hirsch, 27 S. W. Rep. 74, the Supreme Court of Arkansas held that the transfer of a warehouseman's receipt by the owner of the property passes the title to the indorsee as against the creditors of the owner, although the property is not delivered, says the *Corporation Reporter*. The court said in part: "The indorsement and delivery of a receipt of a warehouseman to secure the payment of a debt passes the title and right of the property described in the receipt to the party to whom it is so indorsed and delivered. If the transfer is made by the owner of the property to whom the receipt was given, for the purpose of securing a debt for advance of money made on the faith of such transfer, it is a symbolic delivery of the property that the receipt purports to represent sufficient to create a pledge, and is equivalent to an actual delivery, and will protect the person to whom it is transferred against the claims of creditors and purchasers. The indorsement and delivery of the receipt have the same effect in transferring the title as the delivery of the property. The warehouseman becomes the bailee of the holder of the receipt, to whom it is transferred, and ceases to hold for the former owner. From the authorities cited it appears no particular or minute description of property is required to be given in the receipt. But it is also true that 'a warehouse receipt for a part of certain goods stored in bulk passes no title until such goods are separated—set apart—so as to distinguish them from the general mass, unless the receipt provides the means of making such separation.' In such a case no particular part of the goods can be said to

be mentioned in the receipt, or claimed under it. There is no individuality until the separation is made."

Contract to Switch—Billing—Common Usage.

A decision has been handed down by the Illinois Supreme Court sitting at Ottawa sustaining the position taken by the National Elevator and Dock Company in its suit against the Chicago, Madison & Northern Railroad to enforce the specific performance of a contract entered into by the railroad Oct. 1, 1891. At that time the owners of the elevators managed by the National Dock and Elevator Company waived their claims for damages arising from the construction of certain railway lines by the roads named. The railroads agreed in consideration to deliver to the elevators all cars of grain consigned to them and brought to Chicago over their lines. Arrangements were made with the Alton road, on whose lines the elevators are directly located, for switching privileges. The contention raised by the railroads was that they were not under obligations to deliver any grain not consigned to the elevators from point of shipment. The elevator people introduced evidence to show that it is not common usage to consign grain in this manner, but to consign directly to some firm here which names a destination within the period allowed for inspection. This position is sustained by the court.

OUR CARD BASKET

We have received calls from the following gentlemen prominently connected with the grain and elevator interests, during the month:

E. A. Scholz, Corning, Iowa.
J. A. Crenshaw, Tama, Iowa.
Frank Kaucher, St. Joseph, Mo.
M. Martens, Black River Falls, Wis.
E. C. Sumner of Sumner & Sons, Milford, Ill.
George Reinhardt of Geo. N. Reinhardt & Co., New York.
William Richmond of the Richmond Manufacturing Company, Lockport, N. Y.
L. S. Hogeboom, representative of The Knickerbocker Company, Jackson, Mich.
James M. Sinclair, Agricultural Commissioner of the Victorian Government, Boort, Melbourn, Victoria.

RICE IMPORTS AND EXPORTS.

According to the last report of the Bureau of Statistics rice aggregating 483,000 pounds, valued at \$23,298, was imported free of duty under reciprocity treaty with Hawaiian Islands during September, against 380,000 pounds, valued at \$13,100, in September preceding; and during the nine months ending with September 7,000,200 pounds, valued at \$278,892, were imported, against 3,334,800 pounds, valued at \$120,732, imported during the corresponding months of the year preceding.

Of rice imported free of duty none was exported during September, against 2,190 pounds exported in September preceding; and during the nine months ending with September 210 pounds were exported, against 8,706 pounds exported during the corresponding months of the year preceding.

Dutiable rice aggregating 7,416,256 pounds, valued at \$127,192, was imported during September, against 1,834,807 pounds, valued at \$30,992, in September preceding; and during the nine months ending with September 80,839,123 pounds, valued at \$1,225,388, were imported, against 47,505,350 pounds, valued at \$786,990, imported during the corresponding months of the year preceding. Of dutiable rice we exported 890,193 pounds, valued at \$14,091, during September, against 1,081,133 pounds, valued at \$19,389, in September preceding; and during the nine months ending with September 8,785,246 pounds, valued at \$144,898, were exported, against 8,759,312 pounds, valued at \$162,741, exported during the corresponding months of the year preceding.

Rice flour, rice meal and broken rice aggregating 6,659,100 pounds, valued at \$96,062, was imported during September, against 4,090,758 pounds, valued at \$63,520, in September, 1893; and during the nine months ending with September 48,968,511 pounds, valued at \$710,283, were imported, against 47,444,869 pounds, valued at \$787,267, imported during the corresponding months of 1893. Of imported rice flour, rice meal and broken rice none was exported in September and none in September, 1893; and during the nine months ending with September 987 pounds were exported, against none exported during the corresponding months of 1893.

There will be a convention of shippers and receivers of hay at Cleveland, Ohio, Jan. 21, 1895. Among other subjects for discussion a uniform system of grading hay will be considered.

An elevator receipt for 700 bushels No. 3 Red wheat, dated May, 1890, was sold recently at Chicago for \$5. Another receipt for one carload sold at 3 cents per bushel. One of these receipts had accumulated 48 cents and the other 50½ cents storage.

SEED EXPORTS AND IMPORTS.

Seeds valued at \$131,909 were exported during September, according to the last report of the Bureau of Statistics, against an amount valued at \$854,623 in September preceding, and during the nine months ending with September seeds valued at \$2,076,236 were exported, against an amount valued at \$2,500,633 exported during the corresponding months of the year preceding.

Clover seed amounting to 684,017 pounds was exported during September, against 4,030,054 pounds exported in September, 1893; and during the nine months ending with September 14,968,692 pounds, valued at \$1,474,160, were exported, against 7,284,049 pounds, valued at \$848,757 exported during the nine months ending with September, 1893. Cotton seed aggregating 224,402 pounds was exported during September, against none exported in September, 1893; and during the nine months ending with September 4,458,492 pounds, valued at \$35,808, were exported, against 2,039,251 pounds, valued at \$21,523, exported during the nine months ending with September, 1893.

There was 1 bushel of flaxseed exported during September, against 278,074 bushels in September, 1893; and during the nine months ending with September 13,078 bushels, valued at \$15,525, were exported, against 821,682 bushels, valued at \$986,681, exported during the nine months ending with September, 1893.

Timothy seed aggregating 328,179 pounds was exported in September, against 319,880 pounds in September preceding; and during the nine months ending with September 5,727,517 pounds, valued at \$260,869, were exported, against 5,759,930 pounds, valued at \$450,126, exported during the nine months ending with September, 1893. Other seeds aggregating an amount valued at \$47,075 were exported during September, against an amount valued at \$56,026 exported during September preceding; and during the nine months ending with September other seeds valued at \$289,874 were exported, against an amount valued at \$193,546 exported during the nine months ending with September preceding.

Flaxseed aggregating 184,565 bushels, valued at \$232,187, was imported during September, against 6,966 bushels, valued at \$7,068 in September preceding; and during the nine months ending with September 715,840 bushels, valued at \$860,709, were imported, against 134,667 bushels, valued at \$166,130, imported during the corresponding months of the year preceding. Other seeds valued at \$28,632 were imported during September, against an amount valued at \$16,047 in August preceding; and during the nine months ending with September other seeds valued at \$253,455 were imported, against an amount valued at 344,518 imported during the corresponding months of the year preceding.

LOCATIONS FOR FACTORIES.

The name of the Chicago, Milwaukee & St. Paul Railway has long been identified with practical measures for the general upbuilding of its territory and the promotion of its commerce, hence manufacturers have an assurance that they will find themselves at home on the company's lines.

The Chicago, Milwaukee & St. Paul Railway Company owns and operates 6,150 miles (9,900 kilometers) of railway, exclusive of second track, connecting track or sidings. The eight states traversed by the lines of the company, Illinois, Wisconsin, Northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota, possess, in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory—a people who form one live and thriving community of business men, in whose midst it is safe and profitable to settle. Many towns on the line are prepared to treat very favorably with manufacturers who would locate in their vicinity.

Mines of coal, iron, copper, lead and zinc, forests of soft and hard wood, quarries, clays of all kinds, tanbark, flax and other raw materials exist in its territory in addition to the vast agricultural resources.

A number of new factories have been induced to locate—largely through the instrumentality of this company—at towns on its lines. The central position of the states traversed by the Chicago, Milwaukee & St. Paul Railway makes it possible to command all the markets of the United States. The trend of manufacturing is westward. Nothing should be permitted to delay enterprising manufacturers from investigating. Confidential inquiries are treated as such. The information furnished a particular industry is reliable. Address

LUIS JACKSON,
Industrial Commissioner, C., M. & St. P. Ry.,
425 Old Colony Building, Chicago, Ill.

On account of the low prices of wheat the Southern Pacific Railroad has adopted a new schedule in Oregon. A railroad official says: "The new rates are very much lower, representing reductions practically for all points, varying from 16 per cent. to 33 per cent., cutting seriously into our revenue, which is already diminished by the considerable decrease in tonnage. In making these rates I believe you will agree with us that we are doing our full share to relieve the situation."

THE MARKETS.

We will be pleased to publish under this head short reviews of the conditions ruling in the different markets. Copy must reach us by the morning of the 14th of each month.

GRAIN REPORT OF SHANKS, PHILLIPS & Co., Memphis, Tenn., November 12.—There has been some improvement in hay since our last, the advance being about 50 cents per ton on higher grades, with demand somewhat greater than supply. To-day's market is: Choice \$12.50; No. 1 timothy \$11.50; No. 2 timothy \$10.50; choice clover Mixed \$12.00; No. 1 Mixed \$11.00; No. 2 Mixed \$9.00; choice Kansas Prairie \$9.50@10.00; No. 1 Kansas Prairie \$8.50; choice Arkansas Prairie \$6.00. CORN.—In corn the movement is very light. Practically no demand except for little lots locally at 40@45 cents. None wanted from abroad and home grown not dry enough to market, although crop is reported largest for many years. OATS.—Demand active. No. 2 White 35 cents; No. 3 White 33½ cents; No. 2 Mixed 32½ cents; No. 3 Mixed 31½ cents. WHEAT BRAN.—Large sacks \$13.00; 100-pound sacks \$13.25. Movement reasonably large. WHEAT.—No. 2 soft red winter 51@52 cents. Strong and tending upward. FLOUR.—Very strong and active. Winter patents \$2.55@2.70; extra fancy \$2.25@2.35 in wood. Low grades not wanted.

GRAIN REPORT OF COLLINS & Co., Cincinnati, November, 10.—The weather has been generally wet and stormy, and the movement of grain to market has been more or less restricted. The light receipts with continued noticeable improvement in the demand has had the effect of hardening values, and prices on all grain show a decided advance. We would advise quick shipments while a good demand exists, and before the advance attracts a larger movement and causes a reaction in values. WHEAT.—The receipts are small, and the limited offerings are in active demand, with little higher prices prevailing. No. 2 Red at 52@52½ cents; No. 3 at 51 cents. CORN.—The receipts of new shelled corn are not showing any important increase as yet, being retarded by the lack of drying weather, but there is a promise of colder weather, as the thermometer is ranging near zero in the Northwest, which will greatly facilitate the movement of the new crop. The demand continues active for the few offerings, and quick shipments before the movement grows larger will strike the best market. We quote old No. 2 White at 55@55½ cents; No. 3 at 54 cents; No. 2 Mixed and Yellow at 51@52 cents; No. 3 at 49@50 cents; new No. 3 White at 47@48 cents; new No. 3 Mixed at 45½@46 cents; sample cool and sweet at 43@45 cents, as to condition. EAR CORN.—Good selected Yellow at 43@44 Mixed at 41@43 cents, and White at 42@43 cents for new stock; demand fair. OATS.—The market is ruling firm and higher, owing to the limited receipts, but in the absence of any advance in the outside markets buyers are a little slow to respond. We quote No. 2 White at 33½@34 cents; No. 3 White at 32@32½ cents; No. 2 Mixed at 31½@32 cents; No. 3 at 30½@31 cents. RYE.—The offerings are light with a fair demand. No. 2 at 52 cents. HAY.—Receipts for the week 1,326 tons, shipments 900 tons, and for the corresponding week last year receipts were 1,748 tons, and shipments 880 tons. Unfavorable weather and bad roads continue to curtail the arrivals of hay, and the movement this week is the smallest for some time past. The undertone of the market is much healthier, and prices ruling a little firmer. Choice at \$10.5@10.75; No. 1 at \$10.0@10.25; No. 2 at \$9.00@9.50; grass mixed at \$7.00@8.00; clover mixed at \$8.00@9.00; choice pure clover at \$8.50@9.00. STRAW.—Wheat that is nice and bright at \$4.50 per ton. MILL FEED.—Bran is steady at \$12.25@12.50. Middlings scarce and firm at \$14.50@15.00 per ton, and \$1.00 more including sacks.

At a time when all kinds of corn are so cheap in England, it is curious to learn from America that the British Government has just ordered a large consignment of compressed fodder from the United States, it is presumed for the feeding of army horses. This is in the form of fodder bricks, which consist of crushed oats, maize and chopped hay, firmly pressed into bricks by means of hydraulic presses. Although these are at present an American manufacture, they could surely be made in this country, if it is once found they possess useful qualities. In consequence of this order, however, the American makers anticipate that a large trade will be opened up with this country.—*North British Agriculturist*.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

CORLISS ENGINE WANTED.

A 12x36 Corliss Engine complete wanted. It must be in first-class condition and practically as good as new. Address

KELLY BROS., Edgerton, Kan.

GRAIN BUYING.

If you are a strong bidder for corn and oats every day in the week I can furnish you a buyer, capital and first-class elevator facilities in the heart of the best corn and oats crop in Illinois. Address

COMMISSION, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

RUDY'S PILE SUPPOSITORY

Is guaranteed to cure Piles and Constipation, or money refunded. 50 cents per box. Send two stamps for circular and free sample to MARTIN RUDY, Registered Pharmacist, Lancaster, Pa. No POSTALS ANSWERED. For sale by all first-class druggists everywhere. Peter Van Schaack & Sons, Robert Stevenson & Co., Morrison, Plummer & Co., and Lord, Owen & Co., wholesale agents, Chicago, Ill.

DAVIS' GRAIN TABLES.

The value of wheat or any grain at 60 pounds to the bushel, for any amount less than 100 bushels is shown without addition or multiplication, and for any amount over 100 and under 1,000 bushels, with but a single addition; at any price from 25 cents to \$1.25 per bushel. The value of bushels and pounds of other grain also is shown at 56, 48 and 32 pounds to the bushel at any price from 15 cents to \$1.50 per bushel. Price, postpaid, \$1.25. Address

E. D. DAVIS, 520 Nicollet Ave., Minneapolis, Minn.



[Copy for notices under this head should reach us by the 13th of the month to insure insertion in the issue for that month.]

ELEVATOR SEPARATOR.

One new No. 3 Barnard & Leas Elevator Separator for sale. Address

SIMPSON & ROBINSON Co., 71 Commerce building, Chicago, Ill.

PATTERNS FOR GAS ENGINES FOR SALE.

For Sale—The complete patterns for 4 sizes of gas and gasoline engines all ready for the market. Over 25 already three years in use. Good testimonials. See them running. If you mean business address

GAS AND GASOLINE ENGINES, care AMERICAN MILLER, Chicago, Ill.

DO YOU WANT TO BUILD A SMALL ELEVATOR?

The advertiser has a complete outfit for an elevator with 12 bins, 700 bushels' capacity each, all hopper-bottomed. This material comprises everything for the house above foundation, ready to go together. Will load it on cars at Chicago and furnish plans to build by for \$1,200. Address

OWNER, care AMERICAN ELEVATOR AND GRAIN TRADE, Chicago, Ill.

GRAIN ELEVATOR FOR SALE.

Steam power grain elevator on Chicago & Alton Railroad in Missouri for sale. Convenient to Chicago, St. Louis and Kansas City. Corn sheller, scales, offices, etc., complete. Good opening for lumber business in connection. Splendid grain country. Healthy location. Now in operation and rented to good advantage. Would accept other good property in part payment. Address

J. G. M., Box 656, Washington, D. C.

GRAIN ELEVATOR FOR SALE.

A 40,000 bushel capacity elevator with new 15-horse power gasoline engine for sale. Large, fine office and oasthouse and crib. Advantages—good surrounding country, crop failure unknown, enormous crops this year, small competition, Fairbanks' Track Scales, power car mover, cheap insurance. Liberal terms. The elevator is situated in a thriving town in Illinois, is doing a large business, and is comparatively new and in excellent repair. To anyone who is desirous of doing a banking business in connection with the grain business the opportunity is excellent. Good dwelling house in connection if wanted. Price \$8,000; terms \$2,000 cash, balance in six annual payments. Good security required. Address

NASH-WRIGHT Co., 518 Rialto Building, Chicago, Ill.

JENNINGS' CIPHER CODE.

Jennings' N. E. Telegraph Cipher contains many novel ideas, and is complete with instructions as to buying, selling, ordering, market advices, offers, bids, finance, bill lading, instructions, freight inquiries and advices, shipping inquiries and instructions, guaranteeing, etc., such as no other cipher contains. It is now in use with the principal shippers and dealers in flour, grain and feed. It is invaluable to shippers of corn and oats. For general shipping business it is superior to any other telegraph code. Send for list of users, which is the best argument in its favor. It is also a directory of the New England grain dealers. Sent postpaid on receipt of price, \$3. Address

HENRY JENNINGS, 613 Chamber of Commerce, Boston, Mass.

FOR SALE.

THREE GRAIN ELEVATORS

In Western Iowa on C. & N. W. R. R.

MARTIN D. STEVENS & CO.
COMMISSION MERCHANTS,
218 La Salle St., - CHICAGO.

BAGS! BAGS!!

For Grain or Anything.

Burlaps and Cotton Bags, Twine, etc.

Manufactory and Office:
Near Board of Trade,

W. J. JOHNSTON, 182 Jackson Street, CHICAGO, ILL.

ORDER YOUR COAL FROM



CHICAGO OFFICE, 355 Dearborn Street.

COMMISSION CARDS.

W. F. JOHNSON.

F. J. SCHUYLER.

W. F. JOHNSON & CO.,

Grain, Seed and Provision

COMMISSION MERCHANTS

Room 59 Board of Trade, CHICAGO.

Rooms 406-408 Corn Exchange, MINNEAPOLIS.
Room 317 Chamber of Commerce, ST. LOUIS.
Room 23 Chamber of Commerce, MILWAUKEE.

Address all Correspondence to and make all Drafts on Chicago.

Robert M^cKnight & Sons,

COMMISSION MERCHANTS,

AND DEALERS IN

GRAIN, FEED AND HAY,

2106 and 2108 Market Street, - PHILADELPHIA

REFERENCES: { Merchants' and Third National Banks,
PHILADELPHIA.

COLLINS & Co.,

STRICTLY COMMISSION

Grain, Hay and Mill Feed.

CINCINNATI, OHIO.

COMMISSION CARDS.

ESTABLISHED 1865.

L. Everingham & Co.,

Rooms 84, 85 and 86 Board of Trade,
CHICAGO, ILL.

COMMISSION MERCHANTS.

Liberal Advances made on Consignments.

GRAIN AND SEEDS of all kinds SPECIALTIES.
Special Department for HAY AND STRAW.Milwaukee, Wis. Branch Cincinnati, O.
Minneapolis, Minn. Philadelphia, Pa.
Peoria, Ill. New York, N.Y.

Consignments may be made to us direct to these points, addressing all Drafts, Bills of Lading and correspondence to our central office, Chicago.

SHIP YOUR GRAIN

TO

P. B. & C. C. Miles,

COMMISSION MERCHANTS,

PEORIA, ILL.

Established 1875.

LIBERAL ADVANCES.
QUICK RETURNS.

REFERENCES:—Commercial Nat. Bank, Peoria Savings, Loan & Trust Co., Peoria.

H. B. SHANKS. Established 1873. S. H. PHILLIPS.

Shanks, Phillips & Co.,

COMMISSION MERCHANTS,

HAY, CORN, OATS, BRAN, CHOPS, FLOUR AND CORN MEAL.

306 Front St., Memphis, Tenn.

Refer to Union and Planters' Bank. Cash advances on B. of L.



F. H. PEAVEY & CO.,

Minneapolis,

Minn.

Consignments Solicited.

MILLING WHEAT A SPECIALTY.

E. L. ROGERS & CO.,

ESTABLISHED 1863.

COMMISSION
MERCHANTS,

GRAIN, Flour, Seed, Hay and Straw.

135 S. Second St., (Chamber of Commerce) PHILADELPHIA, PA.

Liberal advances made on consignments. Market reports furnished gratuitously on application. Correspondence solicited.

References: { Corn Exchange National Bank.
Manufacturers National Bank.
Merchants National Bank.

Muhle & Herz,

HAMBURG, GERMANY.

AGENTS
Corn, Grain, Flour,

Provisions, Mill Feed.

Correspondence Solicited from Exporters and Shippers.

BUY YOUR GRAIN

FROM

SUFFERN, HUNT & CO.,

ROOMS 10 AND 11 FENTON BLOCK,

DECATUR, - ILLINOIS.

We make a specialty of White and Yellow Corn for milling purposes. We also handle mixed Corn, white and mixed Oats, Mill Feed and Hay. Can ship any line. We want your business
Send for prices.

COMMISSION CARDS.

J. J. BLACKMAN.

G. W. GARDINER.

J. J. Blackman & Co.,

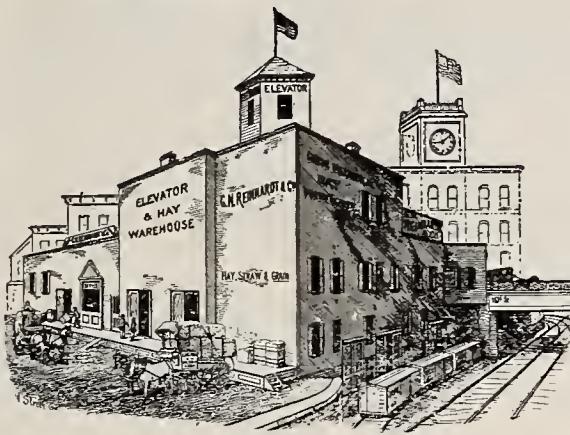
COMMISSION MERCHANTS,

WHEAT, CORN, OATS, BRAN, MIDDLEDINGS, SCREENINGS, HAY,
SEEDS, BEANS, PEAS AND CORN GOODS.

95 Broad Street, Rooms 604 and 605, - NEW YORK.

GEO. N. REINHARDT & CO.,

Melrose Station, New York City.



We sell on Commission and buy direct,

HAY, GRAIN AND FEED.

Storage capacity, 8,000 bales, 30,000 bushels.
Let us know what you have to offer.

D. G. Stewart,

GRAIN AND COMMISSION.

Proprietor IRON CITY GRAIN ELEVATORS.

Capacity, 300,000 Bushels.

LIBERAL ADVANCES ON ALL CONSIGNMENTS.
CORRESPONDENCE SOLICITED.

OFFICE, 1019 Liberty Street, - PITTSBURGH, PA.

ESTABLISHED 1871.

T. D. RANDALL.

ESTABLISHED 1852.

GEO. S. BRIDGE.

T. D. Randall & Co.,

GENERAL COMMISSION
MERCHANTS,

GRAIN, HAY AND FLOUR,

219 South Water Street, - - - CHICAGO.

LEMAN BARTLETT.

O. Z. BARTLETT.

L. Bartlett & Son,

GRAIN AND PRODUCE
COMMISSION MERCHANTS.

BARLEY A SPECIALTY.

Room 23 Chamber of Commerce Bldg.
Milwaukee, Wis.

Careful attention given to orders from Brewers, Maltsters and Millers.

Grain for Seed, Feed and Milling.

E. R. ULRICH.

E. R. ULRICH, JR.

E. R. ULRICH & SON,

Western Grain Merchants

And Shippers of Choice Milling White or Yellow Corn,

Also Mixed Corn, White Oats, Mixed Oats and Choice Red Winter Milling Wheat. Elevators and Storage along the Line of Wabash Ry., J. S. E. Ry., C. & A. Ry., and St. L. C. & C. P. Ry. in Central Illinois.

Office, Sixth Floor, Illinois National Bank.

SPRINGFIELD, - ILLINOIS.

We use Robinson's or Jennings's Cipher.

COMMISSION CARDS.

John W. Barwell & Co.,

16 Pacific Avenue, Chicago.

JOBBERS OF

ALL KINDS OF MILL FEEDS.

Cash paid for round lots of Bran, Middlings, Shorts, Corn Meal, Corn and Oat Chop, Gluten Meal, Old Process Linseed Oil Meal, New Process Linseed Oil Meal, Cotton Seed Meal, Rye Feed, Red Dog Flour, Oat Feed, etc. Write us before buying or selling.

PROMPT—CAREFUL—SATISFACTORY.

Moffatt & Lee Commission Co.,
RECEIVERS AND SHIPPERS OF GRAIN.Rooms 509, 510, 511
Exchange Bldg., KANSAS CITY, MO.First Natl. Bank, Metropolitan Natl. Bank, Inter-
State Natl. Bank, National Bank of Commerce,Owners and Operators of the NATIONAL ELEVATOR
(Capacity 100,000 Bushels).

Paine Brothers,

—Grain Merchants,—

28 CHAMBER OF COMMERCE,

MILWAUKEE, WIS.

Lessees of C. M. & St. P. Elevator C.

* BUY and SELL
OUTRIGHT.**OATS** We deal very largely in Oats and Barley, shipping by car-
goes, and also handle consider-
able quantities of Wheat.**BARLEY** We have special facilities for drying damp grain, and are always ready to buy low-grade Wheat, Barley or Oats, as well as Barley**BARLEY SCREENINGS** Screenings and Wheat Screenings.**DAMP GRAIN** We are always ready to make cash bids, free of commission, on samples, and will pay sight draft against**DAMAGED WHEAT** railroad re-
ceipt for $\frac{3}{4}$ value, making final returns next day after ship-
ment arrives.**FIRE BURNT GRAIN** We buy west and north of Chicago, and sell east and south of Chicago.

Send us samples, quoting prices on anything you have to offer; or we will submit bids, if requested.

Milwaukee weights and inspection to govern all transactions when shipments touch this point.

We can handle goods over Northwest-
ern Line, and most other roads, as readily as over the C. M. & St. P.

Unquestionable references furnished on request.

—PAINE BROS.—

28 Chamber of Commerce, MILWAUKEE, WIS.

The Incline Elevator and Dump.

Patented April 3, 1894.

It is **THE NEW WAY** of elevating ear corn, shelled grain or minerals into car or storage bin.

Its cost is so small that it is practical for farm use.

Its pulley blocks are roller bushed and steel, reducing friction to a minimum.

With it ear corn can be cribbed with less expense than with a scoop, if cost of storage is considered.

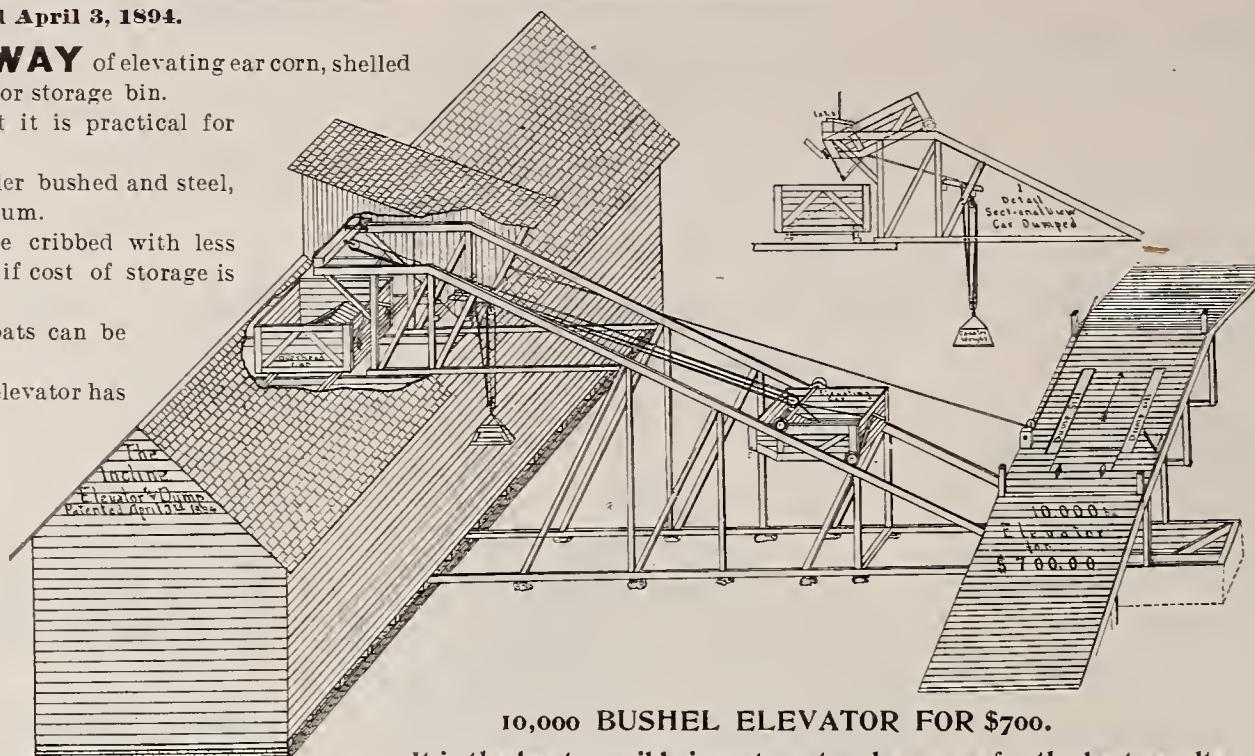
With it 3,000 bushels of oats can be elevated in one hour.

With it a grain dealer's elevator has the following advantages:

Every team elevates its own load, thereby the power for elevating is obtained without cost.

A whole load is elevated at a time and dumped at the top, making it practical to use an overhead car by which at the same cost you obtain more shipping bin capacity alone than all the storage and shipping bin capacity of a belt elevator.

Cleaning machinery can be adjusted with unusual convenience.



It is the least possible investment and expense for the best results.

Manufactured by

H. KURTZ & SON, Mansfield, Ill.

A NEW plan of chute, leading from shipping bin to railroad car, is used, through which either ear corn or shelled grain will pass equally well. The overhead car having a capacity of 100 bushels can be completely filled without moving.

A safety ratchet holds every inch elevated and prevents a crash should a break occur; and the teamster can unfasten rope without getting out of his wagon.

Going to Buy a Scale?

If so, read a few opinions of Prominent Elevator People on the Merits of the Demuth Check Beam.

C. A. PILLSBURY, Pres.

G. W. PORTER, Treas. and Mgr.

K. R. GUTHRIE, Secy.

GENERAL GRAIN DEALERS. ATLANTIC ELEVATOR COMPANY, Incorporated.

J. A. DEMUTH, Esq., Oberlin, O.

MINNEAPOLIS, MINN., May 25, 1893.

DEAR SIR:—Replies to yours of the 22d, would say that we have the Check Beams on twelve (12) scales in our Atlantic "A" elevator, and like them very much. We find them a valuable check on the weighman, and good for reference to check up with. Yours truly, K. R. GUTHRIE, Secy.

NEW YORK CENTRAL LIGHTERAGE CO. NEW YORK CENTRAL ELEVATORS. Gibson L. Douglass, Mgr. WEST SHORE ELEVATOR. 1 and 3 Beaver Street.

J. A. DEMUTH, Esq.,

NEW YORK, May 26, 1893.

DEAR SIR:—We are using nineteen "Check Beams" on the Fairbanks scales at N. Y. C. & H. R. R. elevator, and sixteen at the West Shore R. R. elevator. Have discovered a number of errors through their use during the past two years, and consider them a good thing.

Yours truly,

G. W. PHELON, Supt.

ARMOUR ELEVATOR CO., Rooms 1111 and 1112, 205 La Salle Street.

Elevators on C. M. & St. P. Ry., and C. B. & Q. Ry., Chicago. Total Capacity 9,000,000 Bushels.

J. A. DEMUTH, 40 Elm Street, Oberlin, Ohio.

CHICAGO, May 26, 1893.

DEAR SIR:—Yours of the 22d inst. in reference to Check Beams in use on our Fairbanks scales. Would say that we have in use 35 of the Check Beams on scales at our elevators, and consider them invaluable for accurate weighing. Yours very truly,

ARMOUR ELEVATOR CO.

PADDOCK, HODGE & COMPANY,

GRAIN MERCHANTS.

TOLEDO, OHIO, June 28, 1893.

J. A. DEMUTH & CO., Oberlin, O.

CHICAGO, May 26, 1893.

DEAR SIR:—In reply to your favor of a recent date: We have had our Fairbanks scales supplied with your double entry system since last November, and in errors detected and corrected, for and against us, it has more than paid for itself, to say nothing of the satisfaction of knowing that our weighman's entries are absolutely correct after they have been balanced up by your system.

Dictated by J. H.

Yours truly, JAMES HODGE, Secy. and Treas. Toledo Elevator Co.

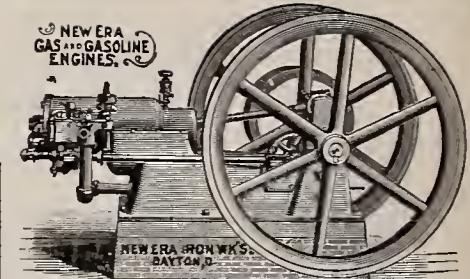
Furnished only with Fairbanks Scales

ELEVATOR FOR SALE OR LEASE.

The Central Elevator of Pittsburgh, Pa., is for sale or lease on favorable terms. The storage capacity is 250,000 bushels, equipped with Corn Sheller, Grain Cleaner, Steam Shovels, and three (3) Portable Chopping Mills. This Elevator is situated in the midst of a compact population of 500,000 persons, and is connected East and West with all the tracks of the Pennsylvania system. The demand for chopped feed is very great in this locality. For a good live man with some capital there is a splendid opportunity. Good reasons given for selling. For further information address,

T. L. RODGERS, Secretary,
Pittsburg, Pa.

GAS ENGINES



PERFECT | Costing from $\frac{1}{4}$ to 1 cent per H. P. actually used per hour.

For full particulars, address:
NEW ERA IRON WORKS,
DAYTON, OHIO.

An Offer to Hay and Grain Men.

THE AMERICAN ELEVATOR AND GRAIN TRADE,

\$1.00 PER YEAR.

Monthly.

THE HAY TRADE JOURNAL AND DIRECTORY,

\$2.00 PER YEAR.

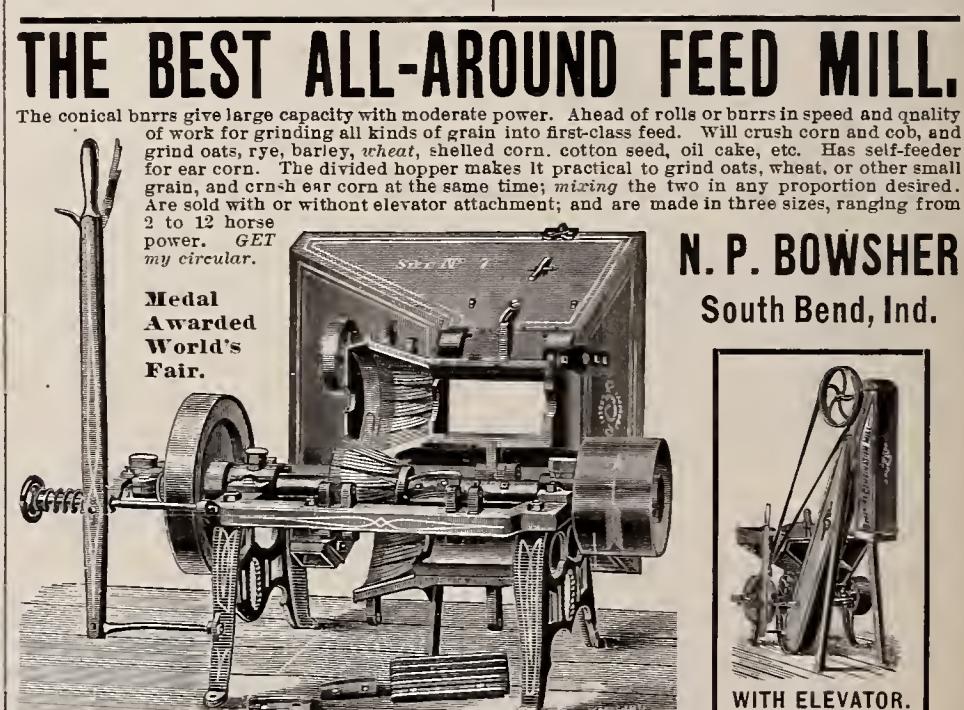
Weekly

BOTH FOR \$2.00.

ADDRESS EITHER

The Hay Trade Journal, OR
Canajoharie, N. Y.

Mitchell Bros. Co.,
184 and 186 Dearborn St., Chicago, Ill.



FOR BEST HAY PRESSES

STEEL PRESSES.

SELF FEEDER

ADDRESS P. K. DEDERICK & CO.
DEDERICK'S WORKS, ALBANY, N.Y.

SUBSCRIBE FOR THE

AMERICAN MILLER.

\$2.00 PER ANNUM.

\$1.00 for Six Months.



J. B. DUTTON'S Patent Automatic Grain Scale,

FOR USE IN

ELEVATORS, DISTILLERIES, MALT HOUSES, FLOUR MILLS, ETC.

ACCURATE AND RELIABLE AT ALL TIMES.

SCALES SENT ON 30 DAYS' TRIAL.

SEND FOR CIRCULAR AND PRICE LIST.

ADDRESS:

J. B. DUTTON, 111 & 113 West Congress St., DETROIT, MICH.

CONVEYING, ELEVATING,
AND
POWER TRANSMITTING
MACHINERY.

C A L D W E L L S
C O N V E Y O R

CALDWELL STEEL CONVEYOR.

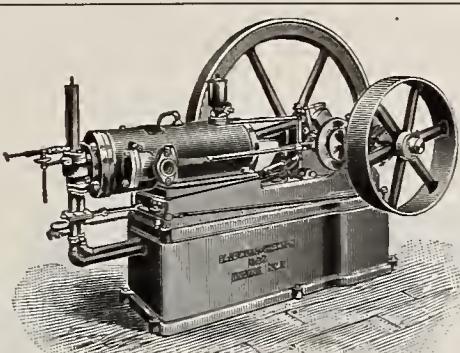
Manufactured exclusively by us at Chicago, with latest improvements.

AUTOMATIC POWER GRAIN
SHOVELS.
SOUTH BEND WOOD SPLIT
PULLEYS.

A. W. CALDWELL & SON COMPANY,

127, 129, 131 and 133 W. Washington St.

CHICAGO, ILL.



SPROCKET WHEELS, LINK BELTING, ELEVATOR BOOTS, BOLTS AND BUCKETS, SHAFTING, BELTING, HANGERS, PULLEYS, GEARS, CAR PULLERS, ETC.

AVERY SEAMLESS STEEL
ELEVATOR BUCKETS.



CALDWELL CHARTER GASOLINE AND GAS ENGINES.

2 TO 75 ACTUAL HORSE POWER.

These engines use gasoline from tanks lower than the engines. They are simple, reliable and safe. We build them substantially, of best material, and we know they are the best engines made.

PLEASE SEND FOR CATALOGUE.

CALDWELL CORRUGATED SEAMLESS
STEEL ELEVATOR BUCKETS.



AMERICAN MILLER.

PUBLISHED BY

MITCHELL BROS. CO., Chicago.

\$2.00 PER YEAR.

EAGLE BRAND THE BEST!

ROOFING

EAGLE BRAND THE BEST!

It is superior to any other roofing and unequaled for House, Barn, Factory or outbuildings; it costs half the price of shingles, tin or iron; it is ready for use and easily applied by anyone; it is the best roofing in the market, in durability, to all others. Send for estimate and state size of roofing.

SEND FOR SAMPLES.

RUBBER PAINT

NO TAR USED.

The best known paint in the world for tin, iron or shingle roofs, fences, sides of barns and outbuildings; it costs only 60 cents per gallon in barrel lots, or \$4.50 for a 5-gallon tub. Color, dark red. It will stop leaks in tin or iron roofs that will last for years. It is guaranteed not to peel, crack, scale nor wash off, and is fire-proof against sparks. **TRY IT.**

EXCELSIOR PAINT AND ROOFING CO.,

155 DUANE STREET, NEW YORK, N. Y.

C D. HOLBROOK & CO.,

Grain Elevator Machinery of Every Description,
Power Car Pullers, Steam Shovels,
Flax Reels, Separators, Horse Powers, Etc.

SOLE NORTHWESTERN AGENTS FOR THE FAMOUS
CHARTER :: GASOLINE :: ENGINES.

SEND FOR ILLUSTRATED CATALOGUE.

239 Fourth Avenue South, MINNEAPOLIS, MINN.

SEEDS

THE ALBERT DICKINSON CO.

Timothy, Clovers, Flax, Hungarian, Millets, Red Top, Blue Grass,
Lawn Grass, Orchard Grass, Bird Seeds, Ensilage Corn,
Pop Corn, Buckwheat, Field Peas, etc.

OFFICES, COR. CLARK & SIXTEENTH STS., CHICAGO, ILL.

**WILL NOT FREEZE,
IMPOSSIBLE**

**TO CLOG UP FROM DUST,
AND**

**So Simple to Use,
REASONS WHY**

THE MILLER FIRE EXTINGUISHERS

Are being adopted by so many of the Elevator Companies throughout the country. Call or address

Miller Chemical Engine Co.,

13 N. State Street, - - - CHICAGO.

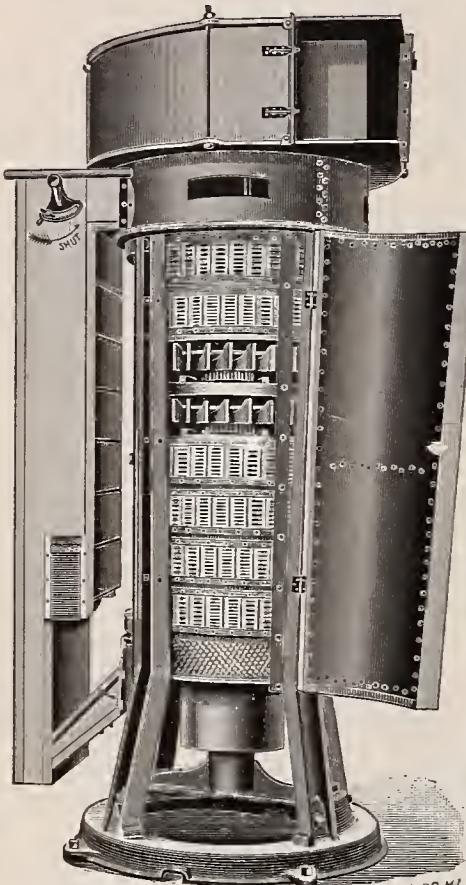
JEFFREY

Roller Chains, Steel Drag, Steel Cable and Special Chains
FOR
ELEVATING
AND CONVEYING
MACHINERY
FOR HANDLING MATERIAL OF ALL KINDS
POWER TRANSMISSION
MACHINERY.
SHAFTING,
PULLEYS,
CLUTCHES,
BUCKETS,
BOLTS,
BOOTS.
WIRE CABLE
CONVEYORS.
For long and short
distance Conveying.

THE JEFFREY MFG. CO., 163 Washington St.
NEW YORK.
Send for Catalogue.

MONEY MAKING MACHINES.

The Iron Prince



This is the only machine which will satisfactorily clean smutty wheat in one operation.

The Prinz Improved Grader and Separator.

BUILT FOR RECEIVING AND MILLING SEPARATORS.

This Separator contains all the latest improvements, among them are many entirely new and very valuable ones. It has a force feed, double suction, side shake, is made with or without attachment of cockle separation; entirely dustless, and is built for a capacity from 500 to 2,500 bushels.

THE SIEVES

Are constructed on an entirely new principle. Write for explanation of the same and you will be delighted by it.

G. J. ZIMMERMAN, Grain Dealer,
No. 204 FLORIDA STREET.

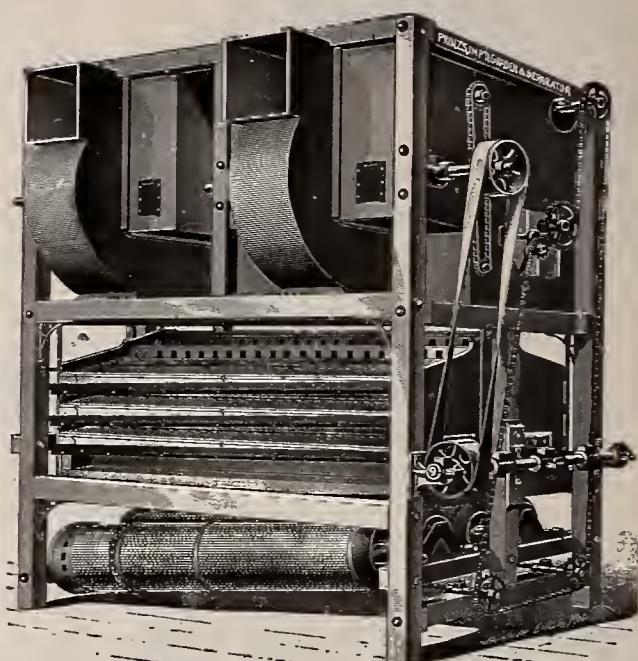
MILWAUKEE, May 8, 1894.

Messrs. Prinz & Rau Mfg. Co., Milwaukee, Wis.

GENTLEMEN:—Have used your Grader and Separator for cleaning barley and wheat for the past two years, with the very best of satisfaction. They do all the work required of a machine of that kind and do it thoroughly. Respectfully yours,

G. J. ZIMMERMAN.

WRITE FOR CATALOGUE.



Cut Shows Machine with Cockle Attachment.

THE PRINZ & RAU MFG. CO.,

659 to 663 E. Water Street, MILWAUKEE, WIS.

WM. & J. G. CREEY, Toronto, Ont., Sole Manufacturers in Canada for the Prinz Cockle Machines.

THE SMITH PNEUMATIC TRANSFER AND STEEL STORAGE SYSTEM.

Now in Successful Operation at Toledo, Ohio.

This is an entirely new and complete system for handling, treating and storing grain, seeds, millstuff, coal, sand, gravel, salt and other subdivided substances which can be handled in bulk, and the protection and preservation of cereals, seeds, vegetables, fruits, ensilage and fodder crops, cotton, wool and other fibers, tobacco, provisions and all perishable substances and valuable commodities in absolute safety from fire, water, air, storms, floods, microbes, insects, vermin, animals, thieves, evaporation, fermentation, oxidation or other causes of damage or destruction.

This system has nothing in common with other methods, but is entirely different and distinct, in construction, arrangement and operation, materials used, principles involved, and results obtained, from all others heretofore in use.

It is fully protected by 20 patents already issued, and others pending, in the United States and principal foreign countries.

It was on exhibition at the World's Columbian Exposition of 1893, and was awarded four highest medals and diplomas and received in addition thereto the highest indorsement of the principal officers of the Exposition as well as of the highest authorities in all industries to which it is applicable.

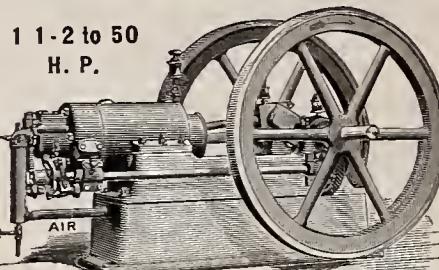
The title to all patents and other rights belonging to this system is vested in The Smith Pneumatic Transfer & Storage Co., and any infringement thereon will receive prompt attention.

The policy of the Company in regard to the introduction of its system is to make such liberal and easy terms with all who desire to use it that there will be no cause for complaint.

Full particulars furnished on application in person or by letter to

The Smith Pneumatic Transfer & Storage Co.
1327 MANHATTAN BUILDING,
315 DEARBORN ST., CHICAGO.

THE SIMPLEST ENGINE IN AMERICA.



FULLY GUARANTEED

IN
Work, Durability, Horse Power,
Economy and Safety.

A Simple, Steady and Reliable Power.

For Circulars and Testimonials address

Witte Iron Works Co. B, Kansas City, Mo.

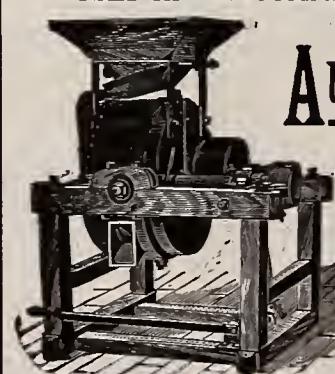


STEAM DRYER

For Cornmeal, Hominy, Buckwheat, Rice, and all kinds of Cereal Products; also Sand, Coal-dust, etc.

Drying Cylinder made entirely of Iron. The machine has few parts and is not liable to get out of order. Automatic in its operation, requiring no attention. Double the capacity of any other Dryer sold for same price.

USED AND RECOMMENDED BY LARGEST AND BEST MILLS.



Automatic Adjustment Mill.

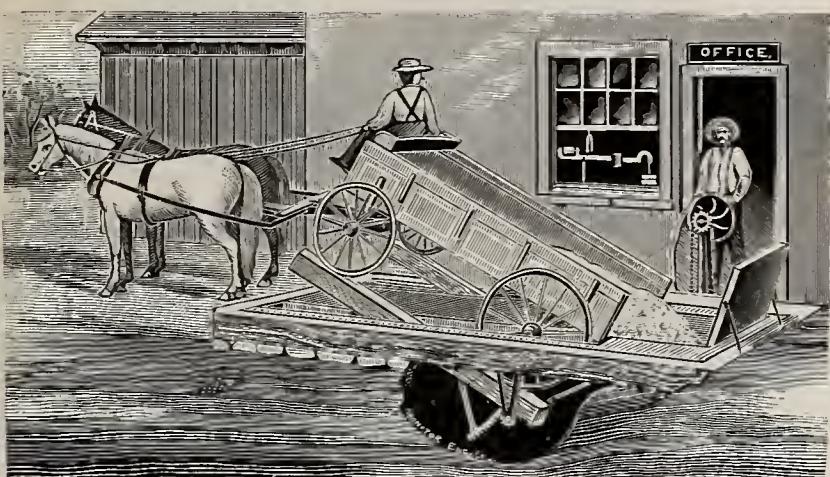
The adjustment is positive and automatic, utilizing every part of the grinding surfaces. Can be started or stopped at pleasure, without stopping the power. Is dressed without taking the shaft out of its boxes, or the belt off the pulley.

Comprises all Recent Improvements for Producing Goods at Lowest Cost.

SEND FOR CIRCULAR.

THE CUTLER CO., North Wilbraham, Mass.

Savage & Love's



PATENT WAGON DUMP

The only dump made that is always under the complete control of operator.

MINNEAPOLIS, MINN., April 28, 1892.

MESSRS. SAVAGE & LOVE, Rockford, Ill.

In regard to your Wagon Dump, we will say that we have about twenty of them, which we have had in active service for the past four or five years, and in this time we have had very few breakages, and nothing of any serious nature, which we consider is very good. And taken all round we think them as good, if not the best dump made.

Yours truly,

CARGILL ELEVATOR CO.

MINNEAPOLIS, MINN., August 9, 1894.

MESSRS. SAVAGE & LOVE, Rockford, Ill.

GENTLEMEN:—In answer to yours of August 9, will say that our dumps that we got from you have given us perfect satisfaction. Our buyers all say that it is superior to any dump they have seen. What they claim superior to other dumps is that they can be let part way down or all the way at pleasure. This helps them where they have sacks and large loads of wheat.

Yours truly,
Dictated by J. F. Cargill.

CARGILL ELEVATOR CO.

Manufactured only by

THE SAVAGE & LOVE CO., Rockford, Ill.

Dealers in Shafting, Pulleys, Hangers, Leather and Rubber Belting and Elevator Supplies.

THE CELEBRATED A. P. DICKEY GIANT GRAIN CLEANERS.

Over-Blast Suction Separator.

THE STANDARD IN THEIR LINE.

"Grain Cleaned to a Standstill."

Manufactured in any desired size and pattern, with capacities to accommodate the largest Elevator and Flouring Mills, or small Warehouses for hand use. Single and Double, End and Side Shakers, and Dustless Separators, both Under and Over-Blast.

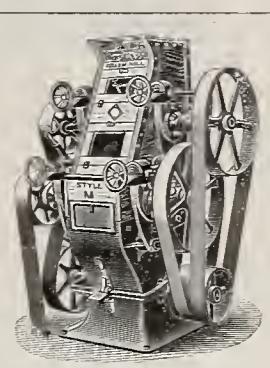
The Quadruple Suction Dustless Separator. Four separate suction, independent of each other with sieves and screens, requiring less power, less floor space, lower in height, needing less bracing, has better and more perfect separations, and furnished with the only perfect force feed and mixer on the market. Guaranteed to clean Grain to any desired standard without waste once through this machine twice as well as any machine made.

For CIRCULARS and PRICES address

A. P. Dickey Mfg. Co.
RACINE, WIS.

This Will Be One of the Best Seasons Ever Known for Feed Grinding.

The Best Machines to do the Grinding with are Gray's.



We Build them in Four and Six Roll Styles

And Sizes to Meet All Requirements.

OUR PRICES ARE ALL RIGHT.

Send for Circular 31, and

TRY US ON

SHAFTING, PULLEYS, BELTING AND

ALL KINDS OF

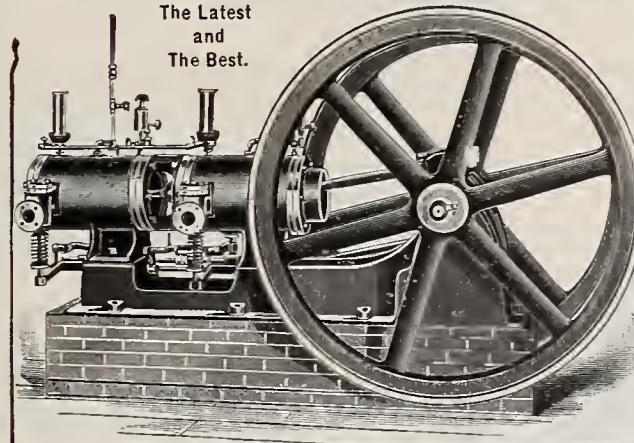
ELEVATOR SUPPLIES.

The Edward P. Allis Company,

RELIANCE WORKS.

MILWAUKEE, WIS.

The Hicks Gas and Gasoline Engine.



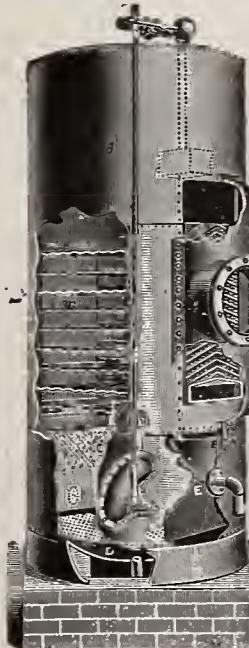
The Long Sought for Found at Last.

An impulse with every turn of the crank. Less gas or gasoline. Steadier motion. Easily started. Less space. Self adjusting in all its bearings. Price within the reach of all. Adapted to all uses, and as much better than the ordinary gas engine now on the market, as the Corliss steam engine is better than the common slide valve of twenty years ago. Two to one hundred horse power. Both vertical and horizontal.

Write for catalogue and prices.

The Hicks Gas Engine Co.
Cleveland, Ohio.

STILWELL'S PATENT IMPROVED.



Lime Extracting Heater.
Uses Exhaust Steam.
Separates the Oil from the Steam and Water.
It Regulates the Feed.
The Pipes Never Pound.
Prevents Scale in Steam Boilers.
Removing all Impurities from the Water Before it Enters the Boiler.

THOROUGHLY TESTED.

Over 4,500
OF THEM
IN DAILY USE.

ILLUSTRATED
CATALOGUE
FREE.

The Stilwell-Bierce & Smith-Vaile Co.
DAYTON OHIO.

GASOLINE ENGINES.

Stationary & Portable

ALL SIZES.
Dwarfs in size and Giants in Strength.
Costs only 10 cents a Day per H. P. to run them, & scarcely any attention.
EVERY ENGINE GUARANTEED
Write for particulars and testimonials.

THE VANDUZEN GAS & GASOLINE ENGINE CO.
CINCINNATI, O.

Mention this paper when you write.



THE "ELI" BALING PRESSES
All Kinds.
HORSE and STEAM Power.
Address Manuf'rs.
COLLINS PLOW CO., Box 23, QUINCY, ILL.



THE IMPROVED
COLUMBIA
STEEL PINOT STEELFACED LOOPS
U. S. STANDARD SCALE
NOT IN ANY COMBINATION OR TRUST
MANUFACTURED BY
KIMBALL BROS., - Council Bluffs, Iowa.

Mention American Elevator and Grain Trade.



Estimates furnished on application for Transfer, Mixing and Storage Elevators.

We invite inspection of our designs and solicit correspondence, respecting the construction of Grain Elevators.

ROOM 118, CORN EXCHANGE, MINNEAPOLIS, MINN.

J. A. CAMPBELL.

OVER 30 YEARS' EXPERIENCE.

CLYDE T. CAMPBELL

J. A. CAMPBELL & SON.,

3117 N Street, LINCOLN, NEB.,

DESIGNERS AND BUILDERS OF

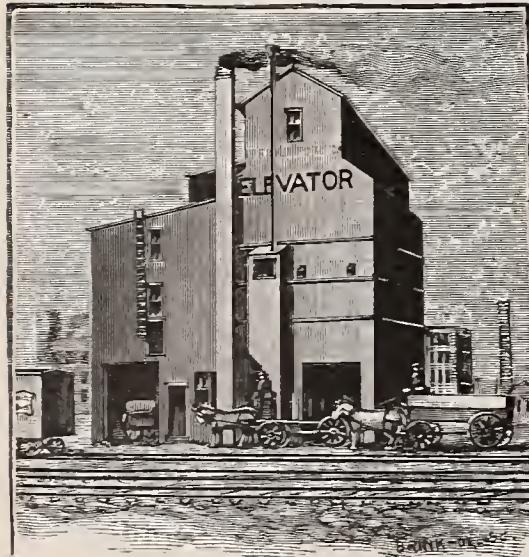
GRAIN ELEVATORS,

Modern in Design, Durable in Construction, and Economical and Convenient to Operate.

We use our own inventions to secure durability and convenience. Write us for full specifications and estimates and save a heavy expense in remodeling or operating a wasteful and ill-contrived elevator.

C. M. SECKNER, President.

J. H. BROWN, Sec'y and Treas.



THE
SECKNER
CONTRACTING CO.

Architects and Builders of

GRAIN ELEVATORS

And General Contractors,

79-81 Dearborn St.,
CHICAGO, ILL.

1234 and 1235 UNITY BLDG.

Telephone 5035 Main

TROMANHAUSER BROS.,

ARCHITECTS, CONTRACTORS, AND BUILDERS OF

GRAIN ELEVATORS.

Country, Transfer, Mixing, Marine,
and Terminal Storage Elevator Plants.

Plans Submitted and Estimates Furnished.

411 New York Life Building,

MINNEAPOLIS, MINN.

SIMPSON & ROBINSON CO.,
DESIGNERS AND BUILDERS OF
GRAIN ELEVATORS,

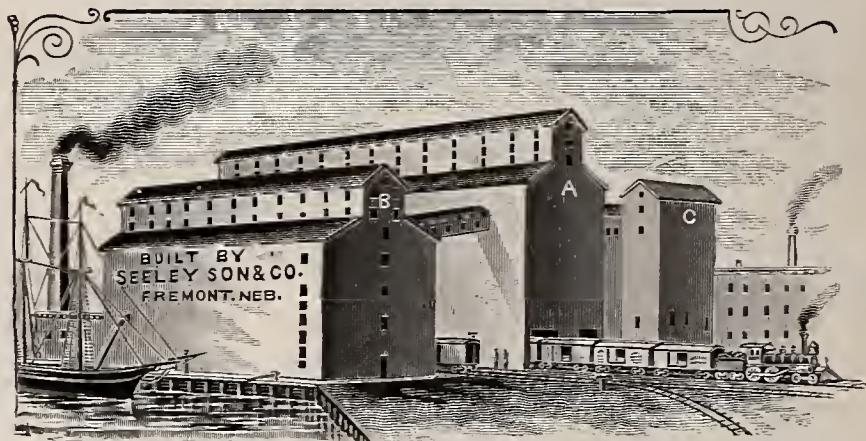
Working, Storage, Cleaning, Mixing and Marine.

Plans, specifications and estimates furnished on short notice.

Our Single Leg Rope Drive reduces fire risk and friction. The Simpson Double Jointed Distributing Spouts economize space and labor.

71-72 Commerce Bldg., CHICAGO.
917 Guarantee Loan Bldg., MINNEAPOLIS.

SEELEY, SON & CO.,
Fremont, Neb.



Architects and Builders

OF ALL KINDS OF

GRAIN ELEVATORS.

FRANK KAUCHER,
GRAIN ELEVATORS,
ARCHITECT AND CONTRACTOR OF

Patentee of the only MECHANICAL Mixing device
On the Market.

410 German American Bldg., ST. JOSEPH, MO.

ROOFING

The Columbia Corrugating Manufg Co.

ADDRESS NILES, OHIO, CHICAGO, ILL.

Please mention this paper.

GET OUR
JOBBERS'
PRICES.
ROLL & CAP STEEL.....
STANDING SEAM.....
V CRIMP
CORRUGATED IRON.....
STEEL BRICK SIDING.....
STEEL CEILINGS.....
CONDUCTORS &c.

ENGINES AND BOILERS. UPRIGHT & HORIZONTAL.
From 3 H.P. Upward.

To get most reliable and
best power for least money,
send for pamphlet and state
your wants to

JAMES LEFFEL & CO.,
SPRINGFIELD, OHIO, or 110 Liberty St., N.Y. City.



JAMES STEWART & CO.,

ENGINEERS AND CONTRACTORS FOR
Grain Elevators
RAILROAD WORK AND HEAVY STRUCTURES,
ST. LOUIS AND BUFFALO.

Construction Department—Work in 1893.

GRAIN ELEVATORS:

1,750,000-bushel Elevator, with three Marine Elevating Towers, for the Eastern Elevator Co., at Buffalo, New York.

500,000-bushel Storage and Cleaning Elevator for the Illinois Central Railroad Co., at New Orleans, Louisiana.

Just contracted for 1,000,000-bushel Elevator for the Coatsworth Estate, Buffalo, New York.

RAILROAD BUILDINGS:

Shops and 40 Stall Round House for Baltimore & Ohio S. W. R. R. Co., at Chillicothe, Ohio.

Freight Depot for the Louisville & Nashville R. R. Co., at St. Louis, Missouri.

Railroad Shops for the C. C. C. & St. L. R. R. Co., at North Linndale, Ohio.

Fifteen (15) Passenger Stations in Ohio for the Baltimore & Ohio S. W. R. R. Co.

MISCELLANEOUS:

Power House for the Cataract Construction Company, at Niagara Falls, New York.

Barrel Warehouse for the Victoria Milling Company, at St. Louis, Missouri.

500,000-bushel Elevator for the Orthwein Bros. Commission Co., at St. Louis, Missouri.

250,000-bushel Elevator for George Urban, Jr., and others, at Ordway, Colorado.

100,000-bushel Elevator for Missouri Pacific Railroad Co., at Coffeyville, Kansas.

Little Miami Freight Depot for the Pennsylvania R. R. Co., at Cincinnati, Ohio.

Twenty (20) Stall Round House for the C. C. C. & St. L. R. R. Co., at Cincinnati, Ohio.

Eight (8) Stall Round House for Ohio & Mississippi Railroad Co., at Cincinnati, Ohio.

Bonded Warehouse for the Ravenswood Distilling Company, at St. Louis, Missouri.

Aluminum Works for Pittsburgh Reduction Company, at Niagara Falls, New York.

ESTABLISHED 1802.

WM. B. SCAIFE & SONS,

Offices, 119 First Avenue,

PITTSBURG, PA.



Corrugated Iron.

Sheet Iron and Copper Work.

Iron Buildings

of all Descriptions.

SEND ALL ORDERS DIRECT TO US.

J. T. NICHOLSON & SON,

Estimates
Furnished.Architects of
ADAMS EXPRESS
BUILDING,Grain
Elevators,

185 Dearborn Street, CHICAGO.

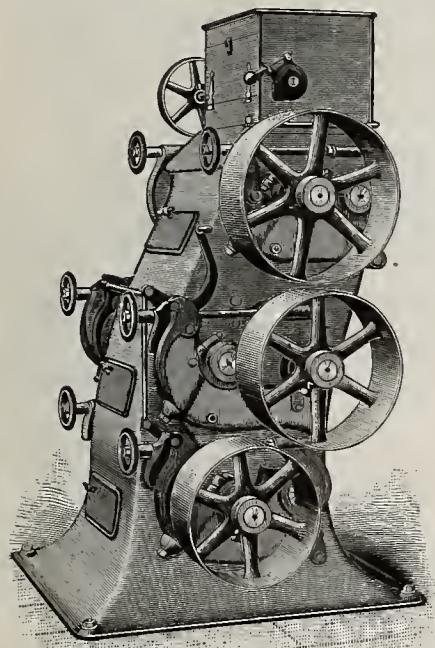
CORRESPONDENCE
SOLICITED.

NORDYKE & MARMON CO., Indianapolis, Ind.,

Flour, Corn and Elevator Machinery,

QUALITY TO SUIT THE MOST EXACTING.

PRICES TO SUIT THE TIMES.

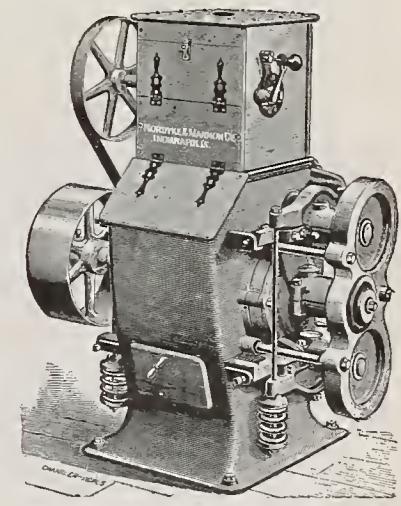


Three Pair High Six Roller Mill.

*Corn Shellers,
Grain Cleaners,
Flour and Bran Packers,
Flour Feeders and Mixers,
Portable Buhr Mills,
Hominy Mills,
Wheat Heaters,
Scales,
Shafting,
Pulleys,*

Elevator Supplies.

*Hangers,
Boxes,
Gearing,
Belting,
Steel Conveyors,
Wood Conveyors,
Link Belt,
Sprocket Wheels,
Engines and Boilers,
Water Wheels,*



Three-Roll Two-Break Corn and Feed Mill.

TEN SIZES and STYLES of ROLLER, CORN and FEED MILLS.

No doubt about the volume of our voice if price and merit talk, and what we say will be interesting if you intend to buy.

Write Us Saying What You Want.

NORDYKE & MARMON CO., - INDIANAPOLIS, IND.

DUST! DUST!



Gibbs' Patent Dust Protector
protects the nose and mouth
from inhalations of poisonous
dust; invaluable in mills,
elevators and every industry
where dust is troublesome.
Perfect protection with per-
fect ventilation. Nickel-plated
protectors \$1, postpaid. Cir-
culars free. Agents wanted.

Gibbs Respirator Co.,
30-36 La Salle Street, - CHICAGO.

American Elevator and Grain Trade.

—PUBLISHED BY—
MITCHELL BROS CO., CHICAGO.
\$1.00 PER ANNUM.

NEVER A PEER



The Salem Bucket has had imitators, but
never an equal. The
most ever claimed by competing buckets is that they "are
as good as the Salem."

We fixed the standard to which others aspired, but
the Salem is now, as it always has been, incomparably the

BEST BUCKET MADE.

The BEST is what you want. It is the cheapest and most
satisfactory in the end. Besides, the Salem is sold as low
as other buckets.

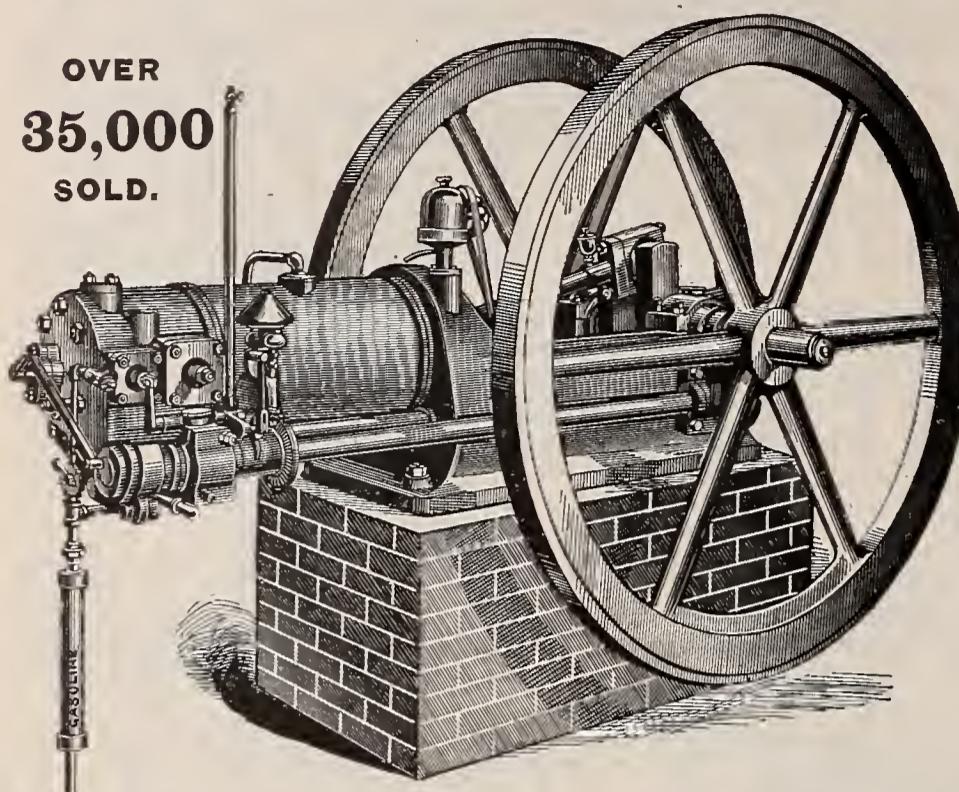
ALL KINDS OF SHEET AND PLATE METAL WORK.
W. J. CLARK & CO., SALEM, OHIO, U. S. A.



Subscribe for the American Elevator and Grain Trade and the American Miller; both one year
\$2.50. Address MITCHELL BROS. CO., Chicago.

The Modern Wonder.

OVER
35,000
SOLD.



OTTO GASOLINE ENGINE

WORKING WITHOUT BOILER, STEAM, ENGINEER, COAL, ASHES, OR DANGER.

2 Medals and 2 Diplomas at World's Columbian Exposition, making over 150 Medals and Diplomas in all.

Capacity of Works: 800 Engines per Year.
Sizes: 2 to 60 Horse-Power.

Best and Cheapest Power for GRAIN ELEVATORS, FLOUR AND FEED MILLS, CONVEYORS, ETC.

OTTO GAS ENGINE WORKS,

OFFICES: Thirty-third and Walnut Sts., Philadelphia.
245 Lake St., Chicago.
31 S. Penna. St., Indianapolis.
107 S. 14th St., Omaha.

THE AMERICAN BELTING COMPANY,

(INCORPORATED)

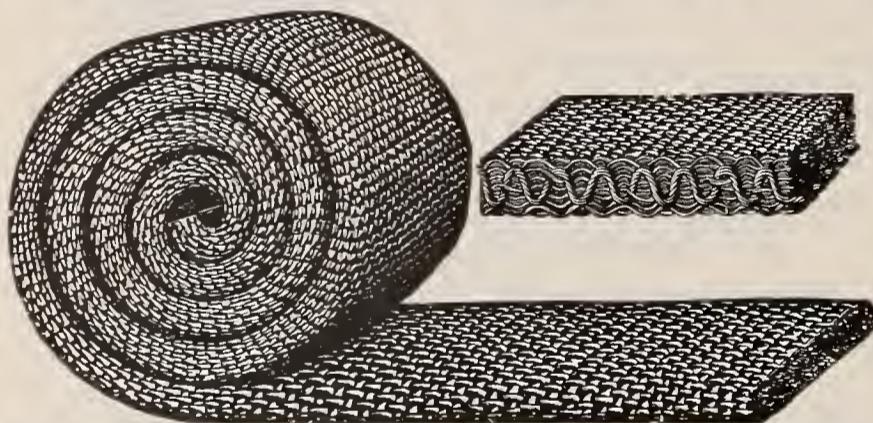
H. N. GREEN, President and General Manager.

MANUFACTURERS OF

THE MADDOX COTTON AND WIRE BELTING,

TO TAKE THE PLACE OF LEATHER BELTING.

MADE OF CABLE STEEL WIRE and
COTTON WOVEN SOLID TOGETHER.



Is absolutely the strongest, toughest, most powerful, flexible, durable and lasting belting made, without any exception whatever. It is stronger, tougher, more durable, and will transmit more power than the best oak-tanned double leather belting made. It will not stretch or slip even when wet. It is water-proof, and is not affected any by water, steam, dampness, moisture, heat dryness, oils, grease, acids, chemicals, dust, changes of climate or weather. It will not mildew, crack, or get hard or stiff. Does not require any grease or other belt compositions, nor special care, but will always keep soft and flexible, and in good condition for use. It is cheaper in price than single leather belting, and 50 to 75 per cent. cheaper than double leather belting. It is absolutely superior to all other kinds of belting for use in flour mills and other cereal mills, and all other places where belting of any kind is used. Is guaranteed not to be affected or injured any by flour dust or mill dust of any kind, or by heat or dryness. This belting is guaranteed to be all that is said and claimed for it in this advertisement and to prove so in use. It will be sent to responsible parties on trial and approval, and if it does not prove to be entirely satisfactory and a good belting, it can be returned. For circulars, price lists, etc., address

H. N. GREEN, 102 Vesey Street, New York City.

ELEVATOR HORSE POWERS.



*Cheapest,
Most Efficient
and Durable Power
For an Elevator.*

**PERFECTLY GOVERNED.
A Steady Motion.**

No Skilled Help Required to Operate

For Catalogue, Address

MORTON MFG. CO.,

MUSKECON HEIGHTS, MICH.
Or E. H. PEASE MFG. CO.
RACINE, WIS., Agents.

HARD-MOUTHED HORSES AND PULLERS CONTROLLED WITH ABSOLUTE EASE. RUNAWAYS IMPOSSIBLE.

This statement is now repeated by thousands who have purchased
BRITT'S AUTOMATIC SAFETY BIT.

SAFETY GUARANTEED This Bit, by an automatic device, closes the horse's nostrils.

HE CANNOT BREATHE, AND MUST STOP.

SAFETY FROM RUNAWAYS ABSOLUTELY GUARANTEED WITH THIS BIT

Any horse is liable to run, and should be driven with it. By its use ladies and children drive horses men could not hold with the old style bits.

Send for illustrated pamphlet containing testimonials from all parts of the world, and earnest and candid expressions about the **BRITT AUTOMATIC SAFETY BIT** and its resistless but harmless and humane power in subduing the most vicious horses and controlling the most stubborn pullers and chronic runaways.

The only bit in the world that is endorsed, advocated, used and sold by the Society for the Prevention of Cruelty to Animals, *The Highest Authority.*

DR. L. P. BRITT, 37 COLLEGE PLACE, NEW YORK.



Gold Medal,
Paris, 1869.

Pat. Feb. 5th,
1869.

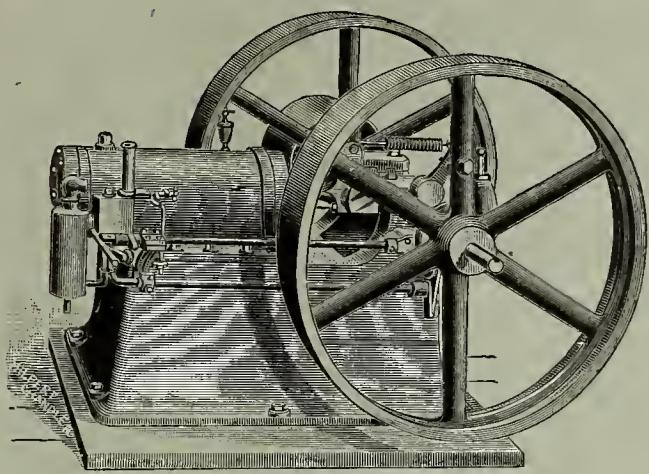


A MODERN MOTOR UNEXCELED.

THE "LEWIS" IMPROVED

Gas and Vapor Engine.

WRITE FOR CATALOGUE AND PRICES.



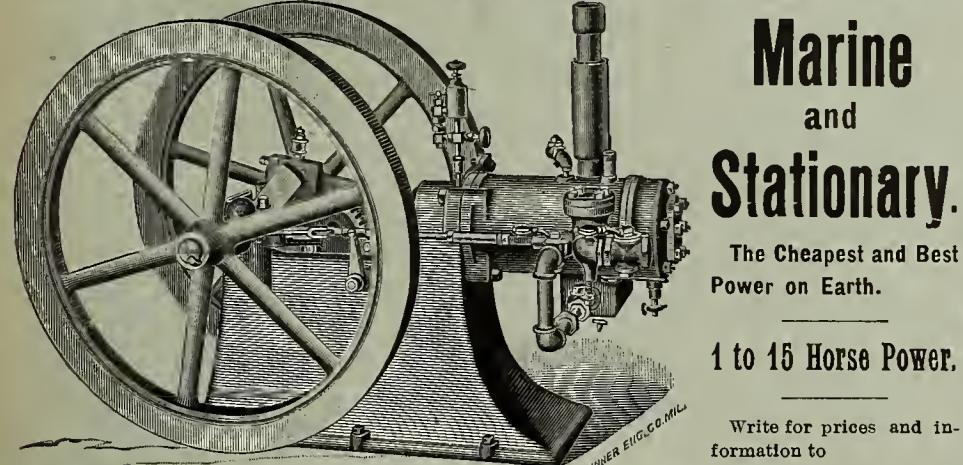
WRITE FOR CATALOGUE AND PRICES.

WEBSTER MFG. CO.,

—o(((SOLE MAKERS,)))o—

Office and Works, 1075 to 1097 W. 15th St., CHICAGO.

The PIERCE Gas and Gasoline ENGINES



Marine and Stationary.

The Cheapest and Best Power on Earth.

1 to 15 Horse Power.

Write for prices and information to

PIERCE ENGINE CO., 16th and Racine Sts., RACINE, WIS.

THE OLD WAY.



For NEW and BEST Way

ADDRESS

UNION IRON WORKS,

DECATUR, ILL.,

Manufacturers of the CELEBRATED

Western Shellers and Cleaners

The "Best in the World."

Elevator Supplies of All Kinds a Specialty.

We are the Pioneer Elevator Builders of the West, and claim priority in the building of Cheap Elevators with Increased Conveniences. Don't BUILD until you get our Plans and Prices. Write for Catalogue.

DAILY LAKE EXCURSIONS TO

St. Joe and Benton Harbor, Mich.

On the Steel Steamer "CITY OF CHICAGO" and the new Propeller "CHICORA," the two fastest steamers on Lake Michigan. Eight hours on the water. Only sixty miles from Chicago. The sister cities are visited by thousands of pleasure seekers every season, and are without exception the most delightful resorts on Lake Michigan—good fishing, bathing, beautiful drives and other attractions. The schedule for the season is as follows:

LEAVE CHICAGO DAILY AT 9:30 A. M. Return about 8:30 P. M. FARE FOR ROUND TRIP, \$1.00.
 " " 11:30 P. M. SINGLE FARE TRIP, \$1.00.
 " " SUNDAY 10:00 A. M. Return about 10:00 P. M. ROUND TRIP, \$1.00.
 " " SATURDAY AFTERNOON AT 2 o'clock. ROUND TRIP, \$1.00. Tickets good returning same night, Sunday at 6 P. M., or Monday's steamer.

Hotel St. Joseph, formerly "Plank's Tavern," is now open. Rates, \$2.00 a day.

GRAHAM & MORTON TRANSPORTATION CO.,

Dock and Office, foot of Wabash Ave., Chicago, Ill.

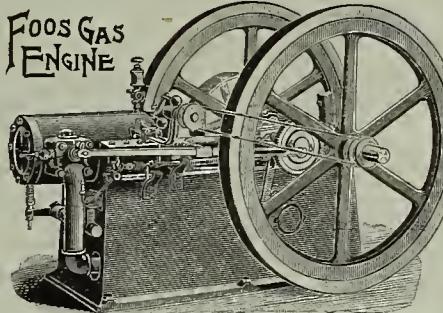
BISULPHIDE OF CARBON,

Of Special Grade for Killing Insects in Warehouses, Etc.

Send for Instructions and Order Direct from the Manufacturer,

EDWARD R. TAYLOR,
CLEVELAND, OHIO.

THE NEW FOOS GAS and GASOLINE ENGINE.



We can furnish Engines from 2 to 50 horse power, that are reliable and economical. Cost of operating Gasoline Engines, one cent per horse power per hour.

We furnish free with every engine an Electric Battery to explode the gas, that will last four months without any attention, then it can be renewed and will last four months more and so on for all time.

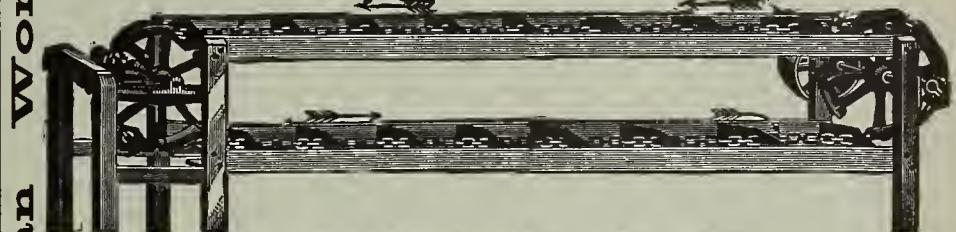
We do not use a red hot tube to explode the gas, that has to be replaced with a new one almost daily.

FOOS GAS ENGINE CO., Springfield, Ohio.

FEED MILLS
Best and Cheapest.
Grind Fine, Fast and Easy.

Send for Circular and Testimonials to
Wilson Bros., Easton, Pa.

HARRISON CONVEYOR.



IT CARRIES All Wrought Iron. No Mixing of Grain. Grain, Seeds, Ear Corn, Wet or Dry Malt, Coal, Sand, Sawdust, Tan Bark Stone, Cinders, Clay, Paper Pulp, Cotton Seed, Etc., Etc.

SEND FOR CIRCULAR AND PRICE LIST.

BORDEN & SELLECK CO., Gen. Agts., 48 and 50 Lake St., CHICAGO, ILL.

THE BEST & CHEAPEST.
CHESAPEAKE BELTING
IN THE WORLD
STITCHED CANVAS BELTING
MANUFACTURED BY THE CHESAPEAKE BELTING CO. BALTIMORE, MD.

AMERICAN ELEVATOR AND GRAIN TRADE.

CONVEYORS

ELEVATOR BUCKETS.

ELEVATOR BOOTS.

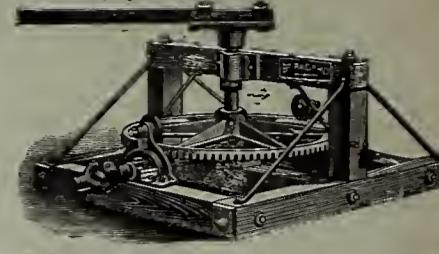
ELEVATOR BOLTS.



ELEVATOR BOOTS.

G. W. CRANE & CO.,
INCORPORATED,
Mill and Elevator Supplies.

724, 726 and 728 South 4th St., MINNEAPOLIS, MINN.
ELEVATING AND CONVEYING MACHINERY A SPECIALTY.
Engines and Boilers, Link Belting and Sprocket Wheels, Standard Scales, Dump Irons, Etc., Horse Powers, Single and Double Gear, Extras for Horse Powers Carried in Stock.
We manufacture all of our Elevator Machinery, and can furnish it cheaper than you can buy from dealers or commission men.

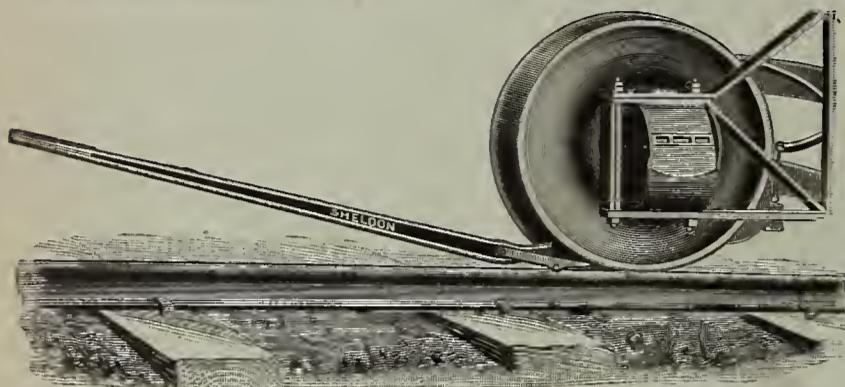


PULLEYS.

SHAFTING.

HANGERS.

BELTING



The Popular "Sheldon" Compound Pinch Bar.

Does not Slip on Track—Just the thing for frosty weather.

Write for Columbian Catalogue.



Improved Spiral Steel Conveyor.
"STEEL PLATE" FRICTION CLUTCHES, ELEVATOR BUCKETS, ETC.

Webster Mfg. Co.,

Engineers, Founders and Machinists,

Office and Works, 1075-1097 West 15th St., CHICAGO.

THE HEIDENREICH CO.,

Engineers and General Contractors.

BUILDERS OF

GRAIN ELEVATORS,

Office, 539-545 The Rookery,

CHICAGO, ILL.

Cable Address: Jumper, Chicago.

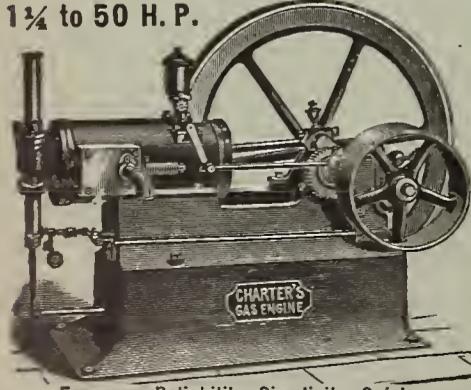
REFERENCES :: :

CHAS. COUNSELMAN & Co.,	CHICAGO, ILL.
REQUA BROS.,	" "
CHICAGO, ROCK ISLAND & PACIFIC R. R. Co.,	" "
DULUTH IMPERIAL MILL CO.,	DULUTH, MINN.
W. C. FUHRER & Co.,	MT. VERNON, IND.
TALPEY BROS. & Co.,	KANSAS CITY, MO.
HIGGS COMMISSION CO.,	" " "

STERLING, ILL., 400 Locust Street,

Is where you must address for printed matter and information regarding

1½ to 50 H.P.



Economy, Reliability, Simplicity, Safety.

MANY IMITATIONS, ONLY ONE ORIGINAL.

Charter Gas Engine Co.

THE MOTOR OF THE 19th CENTURY,

Used Any Place,
By Any One,
For Any Purpose.

MINNEAPOLIS IRON WORKS,

D. M. GILMORE, Proprietor,

MANUFACTURER AND JOBBER

Gasoline Engines, Steam Engines, Boilers.

Grain Elevator Machinery, Horse Powers, Boot Boxes, Dump Irons, Dump Gates, Boot Tanks, Sprocket Wheels, Link-Belt Chain, Hoppers, Grain and Swivel Spouts, Shafting, Pulleys, Hangers, Boxes, Collars, Couplings, Gears, Grain Barrows, Elevator Buckets, Minneapolis Corn Sheller, Hoop Bending Machine, Smoke Stacks, Alliance Tank Pumps, All kinds of Pumps and Cylinders, Brass and Iron Pipe and Fittings, Steam Ganges, Pop and Lever Safety Valves, Vises, Wrenches, Standard Steam, Suction and Wire Lined Hose, Jenkins Rubber Sheet Packing, Boiler Tubes, Heating Tanks, Steam Whistles, Etc., Jenkins' and Lunkenheimer's Standard Valves, Penberthy Automatic Injectors, Lunkenheimer's Grease and Oil Cups, Lunkenheimer's and Michigan Lubricators, Leather and Rubber Belt, Garlock, Empire, Peerless Soapstone and Square Flax Packing.

The only supply house in the city having its own machine shops. All kinds of machine and boiler work done on short notice. Write for prices. Mention this paper.

Shop, 900 4th St. South, Office, 23 Second St. North,
MINNEAPOLIS, MINN.